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ABSTRACT

Compiled are abstracts and indexes to selected print and non-print materials related to wastewater treatment and water quality education and instruction, as well as materials related to pesticides, hazardous wastes, and public participation. Sources of abstracted/indexed materials include all levels of government, private concerns, and educational institutions. Title, author(s), publication date, cross-references, descriptors, and availability are provided for each entry. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements of their programs. This publication supplements and does not replace "Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources" or IRIS Supplements 1-9. (Author/JN)

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Water Quality Instructional Resources Information System

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SE039821

Prepared by

EPA Instructional Resources Center
SMEAC Information Reference Center
1200 Chambers Road - 3rd Floor
Columbus, Ohio 43212

as part of
Grant No. T-901366010

WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts to Water Quality and Water Resources Materials

Supplement X (1982)
June, 1982

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TABLE OF CONTENTS

Topic	Page
Preface	
I. General Information about Materials in IRIS	1
A. What Types of Materials are Included in IRIS	1
B. How are Materials Entered in IRIS	1
C. How Can a User Locate Materials in IRIS	1
1. All Materials Placed in IRIS (Water) Collection	1
2. Materials Placed in the Educational Resources Information System (ERIC)	3
II. How to Use the Compilation	4
A. Description of Information in Resumes	4
B. How to Locate Desired Materials	8
1. Subject Index	8
2. Author Index	8
III. Correcting an Existing IRIS Record	9
IV. Requests to Receive Information about IRIS and the IRC Bulletin	9
V. Requests for Assistance in Using IRIS	9
VI. How to Locate Other Relevant Educational Materials	10
VII. How to Structure a Computer Search of IRIS	16
VIII. How to Order Materials	19
IX. Resume Section	21
X. Author Index	91
XI. Subject Index	97

Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Telephone: (614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Instructional Resources Center (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Instructional Resources Center is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the materials is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Instructional Resources Center at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) Collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. A limited number of copies of the compilation in paper copy and microfiche are available free of charge as long as the supply lasts from the EPA Instructional Resources Center. After the free copies of the compilations are gone, copies will be available for purchase from the EPA Instructional Resources Center.

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1981-82 is $12.00 (within the U.S.). Price to Canada is $14.00. Prices in other Countries is $20.00. Separate quarterly supplements are $4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for searching through the Bibliographic Retrieval Services, Inc., (BRS) and with Dialog. Any search service that currently subscribes to BRS or Dialog is able to search the IRIS data base by on-line techniques. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to BRS or Dialog and do their own searches if they desire.

Information regarding BRS may be obtained by writing or phoning BRS, Corporation Park, Building 702, Scotia, NY 12302, (518) 374-5011.

Information regarding Dialog may be obtained by writing or phoning Dialog Information Retrieval Service, 3460 Hillview Avenue, Palo Alto, CA 94304, (415) 858-3775.

Plans are being made to mount IRIS tapes with other on-line vendors. Information regarding this service will be announced in a future EPA IRC Bulletin and in mailings from the EPA Instructional Resources Center.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 783-3238

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Instructional Resources Center for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but most users of the tapes gain access to them through three major database vendors, Dialog, Systems Development Corporation (Orbit), and Bibliographic Retrieval Services. For the addresses of search services in your state that can search these databases, contact the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for 3¢ per page plus $1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Instructional Resources Center.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
3930 East Camelback Road
Phoenix, Arizona 85018
(602) 254-6156

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are $6.00 for articles published before January 1976 and $4.00 for articles published after January 1976. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106
(313) 761-4700

II. How to Use the Compilation

A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered into ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered in ERIC

   a. IRIS NUMBER: EW 006 023
   b. PUBLICATION DATE: FEB 81
   c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
   d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
   e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES

   f. DESCRIPTIVE NOTE: 30-33P.
   g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.

   h. AVAILABILITY: POLLUTION ENGINEERING, V13 N2

   a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.

   b. PUBLICATION DATE -- date material was published according to information on the material.

   c. TITLE

   d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.

   e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceeded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.

   f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed.

g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.

h. AVAILABILITY -- information in this field indicates where the material can be obtained and the price of the material quoted the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.

2. Sample resume of material entered into ERIC (Resources in Education)

Item entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS ACCESSION NUMBER: EW006664

PUBLICATION DATE: 80

TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.

DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

b. DESCRIPTIVE NOTE: EDRS PRICE: MF01 PLUS POSTAGE-NOT AVAILABLE IN HARD COPY DUE TO MARGINAL LEGIBILITY OF ORIGINAL DOCUMENT

ABSTRACT: THIS COURSE WAS DESIGNED TO PROVIDE THE WATER RESOURCE TECHNICIAN OR MANAGER WITH INFORMATION WHICH WILL AID IN THE IMPLEMENTATION OF IMPROVEMENTS OF PRESENT LAND USE PRACTICES AND TO ILLUSTRATE ALTERNATIVE CONCEPTS AND TECHNIQUES IN LAND AND WATER USE FOR INCREASING AND IMPROVING THE MULTIPLE PRODUCTS
a. OF WATERSHED LANDS. (ED 197 941)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, P. O. BOX 190, ARLINGTON, VA 22210

a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into RESOURCES IN EDUCATION. This identification number is the number to use when ordering a document or when requesting information about a document.

b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of RESOURCES IN EDUCATION; consult the latest monthly issue for current prices. Information about ordering items can also be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P. O. Box 190
Arlington, Virginia 22210

Telephone: (703) 841-1212

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Instructional Resources Center.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index, Author Index, or Institutional Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to Laboratory Techniques and to Wastewater Treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence, they are not listed in this index.

III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the sources to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Instructional Resources Center. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone (614) 422-6717 with your questions.

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals

If you need help in using the IRIS manuals phone (614) 422-6717 or write to the EPA Instructional Resources Center. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

   See Section VIII.

2. Subscribing to BRS, Inc. for computer searching of IRIS.

   Contact: Bibliographic Retrieval Services, Inc.
   Corporation Park, Building 702
   Scotia, New York 12302
   (518) 374-5011

3. Subscribing to Dialog for computer searching of IRIS.

   Contact: Dialog Information Retrieval Service
   3460 Hillview Avenue
   Palo Alto, California 94304
   (415) 858-3775

4. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee).

   The EPA Instructional Resources Center maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

   Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Instructional Resources Center plans to develop some user service products in selected areas in 1982.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. ERIC Clearinghouse on Adult, Career, and Vocational Education
The Ohio State University
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services
University of Michigan
2108 School of Education
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings, theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

C. ERIC Clearinghouse on Elementary and Early Childhood Education
University of Illinois
College of Education
805 West Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research, and practice related to the development of young children.

D. ERIC Clearinghouse on Educational Management
University of Oregon
Library, Room 108
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

E. ERIC Clearinghouse on Handicapped and Gifted Children
Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

F. ERIC Clearinghouse on Higher Education
George Washington University
One Dupont Circle, Suite 630
Washington, DC 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

G. ERIC Clearinghouse on Information Resources
Syracuse University
School of Education
130 Huntington Hall
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

H. ERIC Clearinghouse for Junior Colleges
University of California
96 Powell Library Building
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

I. ERIC Clearinghouse on Languages and Linguistics
Center for Applied Linguistics
3520 Prospect Street, N.W.
Washington, DC 20007
Telephone: (202) 298-9292

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English and speakers of other languages.

J. ERIC Clearinghouse on Reading and Communication Skills
National Council of Teachers of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

K. ERIC Clearinghouse on Rural Education and Small Schools
New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

L. ERIC Clearinghouse for Science, Mathematics, and Environmental Education
The Ohio State University
1200 Chambers Road - Room 310
Columbus, Ohio 43212
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

M. ERIC Clearinghouse for Social Studies/Social Science Education
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

N. ERIC Clearinghouse on Teacher Education
American Association of Colleges for Teacher Education
One Dupont Circle, Suite 610
Washington, DC 20036
Telephone: (202) 293-2450

School personnel at all levels; all issues from selection through preservice and inservice preparation and training to retirement; curricula, educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service
Rosedale Road
Princeton, New Jersey 08541
Telephone: (609) 734-5180

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects of programs.

P. ERIC Clearinghouse on Urban Education
Columbia University
Teachers College
Box 40
525 West 120th Street
New York, New York 10027
Telephone: (212) 678-3437

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences); education of urban,

Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics, structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

Q. Educational Resources Information Center
Central ERIC
National Institute of Education
1200-19th Street, N.W.
Washington, DC 20208
Telephone: (202) 254-5555

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

VII. How to Structure a Computer Search of IRIS

This explanation relates to the IRIS data base that can be searched on-line through Bibliographic Retrieval Services, Inc. or Dialog. As IRIS becomes available through other sources, information relevant to those services will be provided.

A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW number), (2) ERIC Accession Number (ED number), (3) Authors, (4) Institution, (5) Title, (6) Subject index terms, and (7) Abstract.

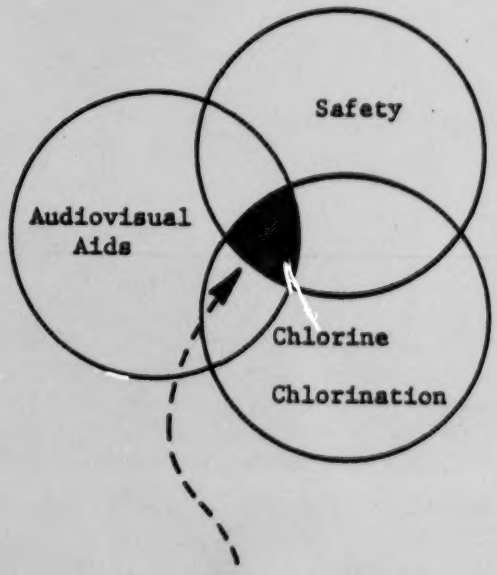
If you submit a search of IRIS through BRS or Dialog, the program will search for the words you select in three fields unless the searcher requests to limit the search. These fields are: (1) the title field, (2) the subject index field, and (3) the abstract. We recommend you use this feature especially for searches on specific terms. If you find more material than you want by this technique you can narrow the search to items that may have the most information on the topic by limiting the search to the subject index field.

Several sample searches are listed on the following pages.

A. Sample 1

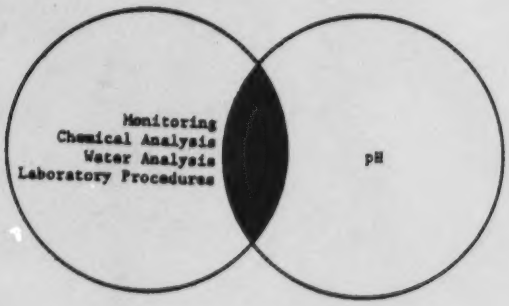
If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the title field, the abstract, and the subject index field would be identified by the computer.

The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine and chlorination.



B. Sample 2

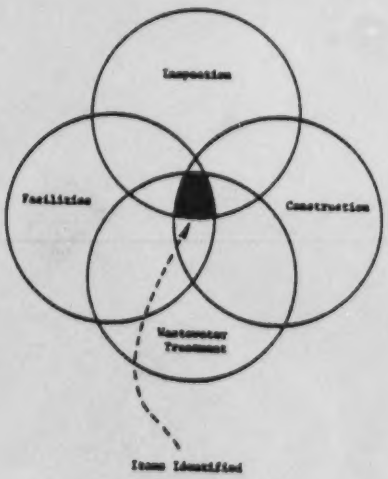
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.



This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.



This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

The subject index can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the searchable fields. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials. Some words will appear in the title or abstract that are not included in the subject term field. Such words can be used to check if any materials are in the data base. If, however, you conduct a search with such a word it is usually best to include a synonym that <u>is</u> in the subject index.

VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

A. A number of audiovisual materials can be obtained on loan or purchased from the EPA Instructional Resources Center. Most items previously available from the NTOTC office will be available after November 1, 1981 from the EPA Instructional Resources Center at The Ohio State University. For further information write or call.

B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P.O. Box 190
Arlington, Virginia 22210
(703) 841-1212

C. The EPA Instructional Resources Center will provide xerox copies of materials that are not copyrighted for $1.00 per document plus $0.03 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Instructional Resources Center. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

IRIS ACCESSION NUMBER: EW005596

PUBLICATION DATE: OCT 82

TITLE: THE CONCEPTUAL AND INSTITUTIONAL ASPECTS OF INTEGRATED PEST MANAGEMENT.

PERSONAL AUTHOR: ALLEN, G. E.; BATH, J. E.

DESCRIPTOR: AGRICULTURE; *ECOLOGICAL FACTORS; *ECONOMIC FACTORS; *EXTENSION; *FOOD PRODUCTION; *FEDERAL ROLE; *HIGHER EDUCATION; *INTEGRATED PEST MANAGEMENT; *MANAGEMENT; *MULTIDISCIPLINARY APPROACH; *OPERATIONS (PESTICIDES); *PEST MANAGEMENT; *PEST CONTROL; *RESEARCH; *SOCIOLOGICAL FACTORS; USDA; USEPA

DESCRIPTIVE NOTE: 658-664P.

ABSTRACT: INTEGRATED PEST MANAGEMENT (IPM) INVOLVES A MULTIDISCIPLINARY APPROACH TO PEST CONTROL, BASED ON ECOLOGICAL, SOCIOLOGICAL AND ECONOMIC FACTORS. THIS ARTICLE DISCUSSES THE CURRENT CONCEPTS OF IPM HORIZONTAL AND VERTICAL INTEGRATION; AND RECENT INSTITUTIONAL ADJUSTMENTS AT THE STATE, REGIONAL AND NATIONAL LEVEL WHICH WILL ENHANCE PEST MANAGEMENT PROGRAMS.

AVAILABILITY: BIOSCIENCE, V30 N10

IRIS ACCESSION NUMBER: EW005597

PUBLICATION DATE: OCT 80

TITLE: THE RELATIONSHIP OF PLANT PATHOLOGY TO INTEGRATED PEST MANAGEMENT.

PERSONAL AUTHOR: FRY, W. E.; THURSTON, H. D.

DESCRIPTOR: *AGRICULTURE; *BIOLOGICAL CONTROLS; *CHEMICAL CONTROLS; *CULTURAL CONTROLS; *DISEASE CONTROL; *INTEGRATED PEST MANAGEMENT; *MANAGEMENT; *PEST CONTROL; *PLANT PATHOLOGY; *PLANT DISEASES; PATHOGENS; *PESTICIDES

DESCRIPTIVE NOTE: 665-669P.

ABSTRACT: THIS ARTICLE DISCUSSES THE IMPORTANCE OF PLANT PATHOGENS AND THE MAGNITUDE OF THE EFFECT THEY CAN HAVE ON FOOD PRODUCTION. CONVENTIAL APPROACHES TO DISEASE CONTROL ARE CONTRASTED AND COMPARED WITH INNOVATIVE HOLISTIC INTEGRATED PEST MANAGEMENT PRACTICES INVOLVING BIOLOGICAL GENETIC AND CULTURAL CONTROL.

AVAILABILITY: BIOSCIENCE, V30 N10

IRIS ACCESSION NUMBER: EW005598

PUBLICATION DATE: OCT 80

TITLE: INTEGRATED PEST MANAGEMENT: THE ROLE OF NEMATOLOGY.

PERSONAL AUTHOR: BIRD, G. W.; THOMASON, I. J.

DESCRIPTOR: *ECOLOGY; *EXTENSION; *INTEGRATED PEST MANAGEMENT; *INTERDISCIPLINARY APPROACH; MANAGEMENT; *NEMATOLOGY; *PLANT PARASITES; PATHOGENS; *PESTICIDES; *RESEARCH

DESCRIPTIVE NOTE: 670-674P.

ABSTRACT: INTEGRATED PEST MANAGEMENT PROVIDES GREAT OPPORTUNITIES FOR THE CONTROL OF PHYTOPARASITIC NEMATODES. THE MANAGEMENT STRATEGY INVOLVES REGULATORY, CULTURAL, CHEMICAL, AND PLANT RESISTANCE COMPONENTS. HOWEVER, SIGNIFICANT RESEARCH IS NEEDED IN ALL AREAS OF NEMATOLOGY THAT INTERFACE WITH IPM. ADDITIONALLY, FURTHER EDUCATION AND EXTENSION IS NECESSARY BEFORE MORE COMPREHENSIVE IPM PROGRAMS CAN BE DESIGNED AND IMPLEMENTED.

AVAILABILITY: BIOSCIENCE, V30 N10

IRIS ACCESSION NUMBER: EW005599

PUBLICATION DATE: OCT 80

TITLE: WEED SCIENCE IN INTEGRATED PEST MANAGEMENT.

PERSONAL AUTHOR: BALDWIN, F. L.; SANTELMANN, P. W.

DESCRIPTOR: *FOOD PRODUCTION; *HERBICIDES; *INTEGRATED PEST MANAGEMENT; *MANAGEMENT; *MULTIDISCIPLINARY APPROACH; *WEED CONTROL; *WEEDS; *WEED SCIENCE

DESCRIPTIVE NOTE: 675-678P.

ABSTRACT: CROP COMPETITION WITH WEEDS RESULTS IN SIGNIFICANT LOSSES IN FOOD PRODUCTION. THE PRESENT KNOWLEDGE BASE IN WEED SCIENCE IS INADEQUATE FOR EFFECTIVE DEVELOPMENT OF TOTAL INTEGRATED PEST MANAGEMENT (IPM) SYSTEMS. HOWEVER, SOME ASPECTS OF WEED SCIENCE CAN BE INCLUDED IN CURRENT IPM PROGRAMS TO REDUCE LOSSES. IPM INVOLVES MULTIPLE BIOLOGICAL, CHEMICAL AND CULTURAL TECHNIQUES.

AVAILABILITY: BIOSCIENCE, V30 N10

IRIS ACCESSION NUMBER: EW005600

PUBLICATION DATE: OCT 80

TITLE: PEST MANAGEMENT: AN ENTOMOLOGICAL PERSPECTIVE.

PERSONAL AUTHOR: BARFIELD, CARL S.; STIMAC, JERRY L.

DESCRIPTOR: *BIOLOGICAL CONTROLS; *CULTURAL CONTROLS; *CHEMICAL CONTROLS; *ENTOMOLGY; HISTORY; *INSECT CONTROL; *INSECT PESTS; *MANAGEMENT; *PEST MANAGEMENT; PEST CONTROL; *RESEARCH

DESCRIPTIVE NOTE: 683-689P.

ABSTRACT: THIS ARTICLE DISCUSSES THE MANAGEMENT OF INSECT PESTS. THE HISTORY OF PEST CONTROL IS BRIEFLY SUMMARIZED, PRESENT PEST MANAGEMENT APPROACHES DETAILED, AND THE FUTURE

DEVELOPMENT OF A DIRECTED MANAGEMENT APPROACH DISCUSSED.

AVAILABILITY: BIOSCIENCE, V30 N10

IRIS ACCESSION NUMBER: EW005601

PUBLICATION DATE: OCT 80

TITLE: ECOSYSTEM MANAGEMENT FOR PEST CONTROL.

PERSONAL AUTHOR: HAYNES, DEAN L.; AND OTHERS

DESCRIPTOR: *ECOSYSTEMS; ECOLOGY; *ECOSYSTEM MANAGEMENT; ENVIRONMENT; *INTEGRATED PEST MANAGEMENT; *MANAGEMENT; *PEST CONTROL

DESCRIPTIVE NOTE: 690-696P.

ABSTRACT: THIS ARTICLE DESCRIBES HOW TO MODEL ECOSYSTEMS TO ARTICULATE THE STRUCTURAL OPTIONS OF THE ECOSYSTEM UNDER CONSIDERATION SO THAT THE DESIRED BEHAVIOR OF THE SYSTEM IS ACHIEVED. AN ONION PEST-CROP ECOSYSTEM IS USED AS AN ILLUSTRATION. THE ECOSYSTEM IS CONCEPTUALLY SEPARATED INTO THE OBJECT OF CONTROL AND ITS ENVIRONMENT, AND CONTROLLABLE AND UNCONTROLLABLE FACTORS ARE BUILT INTO THE DESIGN. PEST CONTROL THROUGH ECOSYSTEM MANAGEMENT IS THEREFORE PRESENTED AS A TECHNICALLY FEASIBLE, ENVIRONMENTALLY SAFE, ECONOMICALLY VIABLE, POLITICALLY MANAGEABLE AND SOCIALLY ACCEPTABLE APPROACH.

AVAILABILITY: BIOSCIENCE, V30 N10

IRIS ACCESSION NUMBER: EW006833

PUBLICATION DATE: AUG 81

TITLE: RISKS WE MUST TAKE.

PERSONAL AUTHOR: SCHINDLER-RAINMAN, EVA

DESCRIPTOR: *CONSULTANTS; *CHANGING ATTITUDES; *JOB SKILLS; *KNOWLEDGE; *LEADERSHIP; *PLANNING; *POSTSECONDARY EDUCATION; *TRAINERS; *TRAINING; *TREND ANALYSIS; *TECHNOLOGY; *VALUES

DESCRIPTIVE NOTE: 12-18P.

ABSTRACT: MAJOR CHANGES AND CHALLENGES THAT WILL AFFECT THE ROLE OF THE CONSULTANT AND TRAINER DURING THE REMAINDER OF THE PRESENT DECADE ARE DISCUSSED. STRESSED IS INFORMATION OVERLOAD, AND THE CONSTANT DEVELOPMENT OF NEW TECHNIQUES NEW KNOWLEDGE, AND NEW TECHNOLOGY THAT WILL RAPIDLY BECOME OUTDATED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006834

PUBLICATION DATE: AUG 81

TITLE: HOW TO PREPARE YOUR PEOPLE.

PERSONAL AUTHOR: CRIPPLE, GREGORY H.; LITCHFIELD, HARRY E.

DESCRIPTOR: *ADULT EDUCATION; *COMMUNICATION SKILLS; *INSTRUCTION; *MANAGEMENT; *PROGRAMS; *PERSONNEL; *POSTSECONDARY EDUCATION; *SEMINARS; *TRAINING

DESCRIPTIVE NOTE: 20-22P.

ABSTRACT: THE USE OF A GUIDE IS DESCRIBED TO HELP MANAGERS SUPPORT THE LEARNING EXPERIENCES OF THEIR SUBORDINATES. INCLUDED IS A CHECKLIST OF THINGS TO DO AND/OR DISCUSS BOTH PRIOR TO AND AFTER ATTENDING A TRAINING PROGRAM.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006835

PUBLICATION DATE: AUG 81

TITLE: MANAGING AS LEARNING.

PERSONAL AUTHOR: LUKE, ROBERT A., JR.

DESCRIPTOR: *ADULT EDUCATION; EVALUATION; *EDUCATIONAL OBJECTIVES; *INSTRUCTION; *LEARNING ACTIVITIES; *MANAGEMENT; *MANAGERS; *PLANNING; *PERFOMANCE BASED EDUCATION; POST SECONDARY EDUCATION; *SELF-DIRECTED LEARNING; *TRAINING

DESCRIPTIVE NOTE: 24-30P.

ABSTRACT: THE STUDY OF CONDITIONS UNDER WHICH ADULTS LEARN IS PRESENTED. STRESSED IS THE USE OF PERFORMANCE CONTRACTS AS A PLANNING TOOL FOR SELF-DIRECTED LEARNING.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006836

PUBLICATION DATE: AUG 81

TITLE: LEN NADLER ON. . . . "QUALITY OF WORK LIFE PRODUCTIVITY, AND. . ."

PERSONAL AUTHOR: NADLER, LEN

DESCRIPTOR: *EDUCATIONAL GOALS; *INCENTIVES; *JOB ANALYSIS; *MANAGEMENT; *MOTIVATION; *PERFORMANCE; *PRODUCTIVITY; TRAINING PROGRAMS; *VALUES; *WORK ENVIRONMENT

DESCRIPTIVE NOTE: 32-35P.

ABSTRACT: THE QUALITY OF WORK LIFE AND PRODUCTIVITY AS COMPONENTS RELATED TO THE BEHAVIOR AND PERFORMANCE IN THE WORKPLACE IS DISCUSSED. FACTORS ADDRESSED INCLUDE THE

DIFFERENCE BETWEEN MOTIVATION AND INCENTIVE, PARTICIPATIVE MANAGEMENT, AND USED TIME.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006837

PUBLICATION DATE: AUG 81

TITLE: HUMAN RESOURCES ACCOUNTING: CAN WE AFFORD IT?

PERSONAL AUTHOR: EBERSBERGER, SUE A.

DESCRIPTOR: *ACCOUNTING; COST-EFFECTIVENESS; *DECISION-MAKING; EDUCATIONAL PROGRAMS; EMPLOYEE RELATIONS; *HUMAN RESOURCES; *MANAGEMENT; *PLANNING; *TRAINING; *VALUES

DESCRIPTIVE NOTE: 37-40P.

ABSTRACT: THE ROLE OF HUMAN RESOURCES ACCOUNTING IS DISCUSSED. THE POTENTIAL USEFULNESS AS WELL AS THE LIMITATIONS OF ASSIGNING HUMAN RESOURCE VALUES IS DESCRIBED FOR THE WORKPLACE ENVIRONMENT.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006838

PUBLICATION DATE: AUG 81

TITLE: BRAIN/MIND AND HUMAN RESOURCES DEVELOPMENT.

PERSONAL AUTHOR: SPRINGER, JUDY

DESCRIPTOR: BIOLOGICAL INFLUENCES; *EDUCATIONAL RESEARCH; *HUMAN DEVELOPMENT; *INSTRUCTION; *TEACHING METHODS; *TRAINING

DESCRIPTIVE NOTE: 42-49P.

ABSTRACT: THE APPLICATION OF BRAIN/MIND CAPABILITIES IN TRAINING AND DEVELOPMENT IS EMPHASIZED. TECHNIQUES THAT ADDRESS ALL THE BASIC BRAIN FUNCTIONS IN THE COURSE OF INSTRUCTION HETEREOGENEOUS GROUPS OF LEARNERS IS STRESSED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006839

PUBLICATION DATE: AUG 81

TITLE: SELF-DIRECTED LEARNING AND HRD.

PERSONAL AUTHOR: RYMELL, ROBERT C.; NEWSOM, RON

DESCRIPTOR: *ADULT LEARNING; ENGINEERING; *HUMAN RESOURCES DEVELOPMENT; *INSTRUCTION; *JOB SKILLS; *LEARNING ACTIVITIES; *POST SECONDARY EDUCATION; *PERSONNEL; *SELF-DIRECTED INSTRUCTION; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 50-52P.

ABSTRACT: A MORE EFFICIENT WAY TO TRAIN EMPLOYEES IS SUGGESTED. USE OF SELF-DIRECTED, JOB-RELATED LEARNING PROJECTS WILL ACCOMPLISH TRAINING MORE EFFECTIVELY.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006840

PUBLICATION DATE: AUG 81

TITLE: SPEAKING FROM EXPERIENCE - "FUTURE ENCOUNTERS OF THE HRD KIND."

PERSONAL AUTHOR: BELL, CHIP R.

DESCRIPTOR: *EDUCATIONAL OBJECTIVES; *EDUCATIONAL PROGRAMS; *HUMAN RESOURCES DEVELOPMENT; *MANAGEMENT; *PLANNING; *SOCIETAL NEEDS; TECHNOLOGY; *TREND ANALYSIS; *TRAINING; *VALUES

DESCRIPTIVE NOTE: 54-57P.

ABSTRACT: THE MANAGER'S ROLE IN MEETING THE FUTURE NEEDS OF SOCIETY AS SHAPED BY TRAINING AND WORK VALUES OF THE LABOR FORCE DESCRIBED THROUGH PEOPLE-CENTERED SYSTEMS, PROGRAMS, AND RESOURCES.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006841

PUBLICATION DATE: AUG 81

TITLE: EDUCATING THE TRAINING PROFESSIONAL.

PERSONAL AUTHOR: GAYESKI, DIANE

DESCRIPTOR: *CURRICULUM; *EDUCATIONAL PROGRAMS; *HIGHER EDUCATION; INSTRUCTION; JOB SKILLS; *MANAGEMENT; *PLANNING; *TRAINING; *TRAINER EDUCATION; *TRAINERS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 60-66P.

ABSTRACT: PRESENTED IS A MODEL CURRICULUM TO ASSIST COLLEGES AND UNIVERSITIES OF TRAINING PROFESSIONALS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006842

PUBLICATION DATE: AUG 81

TITLE: VIDEODISC: NOVELTY OR REVOLUTIONARY MEDIUM?

PERSONAL AUTHOR: MARX, RAYMOND J.; WICKS, FREDERICK W.

DESCRIPTOR: AUDIOVISUAL AIDS; *EDUCATIONAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; *INSTRUCTION; *LEARNING ACTIVITIES; *POST SECONDARY EDUCATION; *SELF-PACED INSTRUCTION; *TRAINING TECHNIQUES; *TRAINING PROGRAMS; *VIDEODISCS

DESCRIPTIVE NOTE: 67-70P.

ABSTRACT: THE USE OF THE VIDEODISC AS A TOOL TO ASSIST TRAINERS IS DISCUSSED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N8

IRIS ACCESSION NUMBER: EW006847

TITLE: THE SANITARIAN'S HANDBOOK.

PERSONAL AUTHOR: FREEDMAN

DESCRIPTOR: *DISEASE CONTROL; DRINKING WATER; *FOODS; *HANDBOOKS; *HEALTHE; *HYGIENE; MICROBIOLOGY; *PEST CONTROL; *PUBLIC HEALTH; REGULATIONS; *SANITATION; SEWAGE; *WASTE DISPOSAL; WASTES; WATER POLLUTION CONTROL; *WATER SUPPLY

DESCRIPTIVE NOTE: 1400P. PRICE: $69.50

ABSTRACT: PRESENTED IS A COMPREHENSIVE GUIDE TO SANITARY PRINCIPLES AND THEIR PRACTICAL APPLICATION. CONTENTS INCLUDE: PUBLIC HEALTH; DISEASE AND PEST CONTROL, FOOD AND DRUG CONTROL, SCHOOL SANITATION, OCCUPATIONAL HYGIENE, RADIATION HAZARDS WASTE DISPOSAL, REFRIGERATION AND SANITARY REGULATION'S.

AVAILABILITY: PEERLESS PUBLISHING COMPANY, P. O. BOX 30187, NEW ORLEANS, LA 70190

IRIS ACCESSION NUMBER: EW006914

PUBLICATION DATE: 81

TITLE: YOU CAN BE A LEADER.

PERSONAL AUTHOR: SOLOMON, BEN; BOWERS, ETHEL MAY

DESCRIPTOR: *ADULT EDUCATION; *BEHAVIOR; *INSTRUCTION; *INSTRUCTIONAL MATERIALS; *LEADERS; *LEADERSHIP; *LEADERSHIP TRAINING; *MANAGEMENT; *MOTIVATION; MOTIVATION TECHNIQUES; *POST SECONDARY EDUCATION; SKILL DEVELOPMENT; *SUPERVISION; *TRAINING; *VOLUNTEERS; VOLUNTEER TRAINING

DESCRIPTIVE NOTE: 157P. PRICE: $5.90

ABSTRACT: DESCRIBED ARE TECHNIQUES FOR BEING A LEADER AND TRAINING OTHERS FOR LEADERSHIP. EMPHASIZED ARE THE BASICS OF LEADERSHIP, SUPERVISION AND MANAGEMENT SKILLS, THE RECRUITMENT OF VOLUNTEERS AND THEIR SUPERVISION, AND LEADERSHIP BY PARENTS.

AVAILABILITY: LEADERSHIP PRESS, P. O. BOX 1144, CLAREMONT, CA 91711

IRIS ACCESSION NUMBER: EW006996

PUBLICATION DATE: OCT 81

TITLE: CHLORINE RESIDUAL MONITORING SIMPLIFIED.

DESCRIPTOR: *CASE STUDIES; *CHLORINE; *CHLORINE RESIDUAL ANALYZERS; EQUIPMENT; *INSTRUMENTATION; *MAINTENANCE; *MONITORING; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *SAMPLING; *WATER TREATMENT

DESCRIPTIVE NOTE: 16P.

ABSTRACT: THIS ARTICLE DISCUSSES THE INSTALLATION OF THREE AMPEROMETRIC CHLORINE RESIDUAL ANALYZERS EQUIPPED WITH SPHERICAL PLASTIC CLEANING MEDIA WHICH HAVE VIRTUALLY ELIMINATED ANALYZER MAINTENANCE REQUIREMENTS OF THE 60 MGD CAPACITY WATER TREATMENT FACILITY SERVING LINCOLN, NEBRASKA.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW006997

PUBLICATION DATE: OCT 81

TITLE: RESTORING AN ANTIQUE WATER SYSTEM.

DESCRIPTOR: *CASE STUDIES; *DRINKING WATER; *EQUIPMENT; *FACILITIES; *MAINTENANCE; *PIPES; *RESTORATION; *WATER TREATMENT; *WATER SUPPLY; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 31-32P.

ABSTRACT: THIS ARTICLE DISCUSSES THE MAJOR WATER SYSTEM REHABILITATION PROGRAM OF BURLINGTON, NEW JERSEY. THE COMPLETE PROGRAM INCLUDED THE CONSTRUCTION OF A NEW WATER TREATMENT PLANT, ADDITION OF ELEVATED STORAGE, AND RESTORATION OF THE VERY OLD WATER DISTRIBUTION SYSTEM. ATTENTION IS FOCUSED ON THE REHABILITATION OF THE DISTRIBUTION PIPING NETWORK.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW006998

PUBLICATION DATE: OCT 81

TITLE: A PROCESS THAT MADE IT POSSIBLE.

DESCRIPTOR: *CASE STUDIES; *FACILITIES; *MAINTENANCE; *PERFORMANCE EVALUATION; *PIPES (WATER); *PIPES; *REHABILITATION; *WATER SUPPLY; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 32P.

ABSTRACT: THIS ARTICLE DESCRIBES A WATER PIPE REHABILITATION PROCESS CALLED SPUNLINE, WHICH IS USED TO RESTORE OLD PIPE AFFECTED BY SCALE BUILD-UP, TUBERCULATION, AND CORROSION. THIS PROCESS IS A CENTRIFUGAL METHOD OF APPLYING A CEMENT MORTAR LINING TO THE INTERIOR WALLS OF PIPES WITH DIAMETERS IN THE RANGE OF 4 INCHES TO 22 FEET.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW006999

PUBLICATION DATE: OCT 81

TITLE: WATER TANKS: A NEW LOOK ON THE HORIZON.

DESCRIPTOR: *CASE STUDIES; *DESIGN; *FACILITIES; *RESERVOIRS; *WATER SUPPLY; *WATER STORAGE; *WATER TANKS

DESCRIPTIVE NOTE: 38-40P.

ABSTRACT: THIS ARTICLE EXAMINES INNOVATIVE NEW DESIGNS AND DECORATIONS FOR WATER STORAGE TANKS. SEVEN DIFFERENT WATER TANKS ARE FEATURED; THEIR DESIGN RANGES FROM ONE THAT SERVES A DUAL PURPOSE OF WATER STORAGE AND HOUSING A FIRE STATION TO ONE THAT RESEMBLES A GIANT PEACH.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW007000

PUBLICATION DATE: OCT 81

TITLE: LOOK WHAT HAPPENED TO THE WATER WORKS GATE VALVE.

PERSONAL AUTHOR: CULLINGS, ROBERT

DESCRIPTOR: *DESIGN; *EQUIPMENT; *FACILITIES; *GATE VALVES; *STATE-OF-THE-ART REVIEWS; *VALVES; *WATER DISTRIBUTION; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 42844P.

ABSTRACT: THIS ARTICLE PROVIDES A DESCRIPTION OF THE EVOLUTION IN DESIGN OF WATER WORKS GATE VALVES. SPECIFIC ATTENTION IS FOCUSED ON COMPARING AND CONTRASTING THE OLDER DOUBLE DISC VALVE AND THE RESILIENT SEAT VALVE.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW007001

PUBLICATION DATE: OCT 81

TITLE: CALCULATOR PROGRAM AIDS LAGOON DESIGN.

PERSONAL AUTHOR: PALMENBERG, ROGER E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CALCULATORS; COMPUTER APPLICATIONS; *COMPUTER PROGRAMS; *CONSTRUCTION; *DESIGN; *LAGOONS; *MATHEMATICAL MODELS; *WATER STORAGE

DESCRIPTIVE NOTE: 49852P.

ABSTRACT: THIS ARTICLE DESCRIBES A PROGRAMMABLE CALCULATOR PROGRAM WHICH GIVES A TRIAL AND ERROR SOLUTION TO EARTHWORK VOLUMES FOR LAGOON CONSTRUCTION. THE PROGRAM PROVIDES THE DEPTH OF CUT, CUT VOLUME, FILL VOLUME, AND NET EARTHWORK VOLUME FOR THE BALANCED CUT-AND-FILL CONSTRUCTION APPROACH. CALCULATION PROCEDURE AND PROGRAM, BACKGROUND INFORMATION, DESIGN IMPLICATIONS, AND A SAMPLE PROGRAM ARE PROVIDED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW007002

PUBLICATION DATE: OCT 81

TITLE: WATER METERING AND CONSERVATION.

PERSONAL AUTHOR: HANKE, STEVE H.

DESCRIPTOR: *CASE STUDIES; *CONSERVATION; *COST-EFFECTIVENESS; *DATA ANALYSIS; *EVALUATION; *MATHEMATICAL MODELS; *WATER CONSERVATION; *WATER METERS; WATER RESOURCES; *WATER USE

DESCRIPTIVE NOTE: 57859P.

ABSTRACT: THIS ARTICLE DESCRIBES A FORMAL WATER CONSERVATION MODLE THAT CAN BE USED TO EVALUATE THE COSTS AND BENEFITS OF INSTALLING WATER METERS. A DEMONSTRATION OF THE USEFULNESS OF THIS MODEL IS ILLUSTRATED BY A COST-BENEFIT ANALYSIS OF A WATER METER INSTALLATION PROGRAM IN PERTH, AUSTRALIA.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW007003

PUBLICATION DATE: OCT 81

TITLE: DOWN TO EARTH LEAK DETECTION.

PERSONAL AUTHOR: BOWEN, RON

DESCRIPTOR: *CASE STUDIES; *COST EFFECTIVENESS; *EQUIPMENT; LEAKS; *MAINTENANCE; *MICHIGAN; *WATER LEAKS; *WATER SUPPLY; *WATER DISTRIBUTION; *WATER LOSS; *WATER RESOURCES

DESCRIPTIVE NOTE: 62865P.

ABSTRACT: THIS ARTICLE DESCRIBES HOW THE TRAVERSE CITY, MICHIGAN WATER DEPARTMENT UNDERTOOK A COMPREHENSIVE LEAK DETECTION PROGRAM TO SOLVE THEIR WATER LOSS PROBLEM. THE CITY PURCHASED A SOUND EVALUATION INSTRUMENT; ITS USE AND THE CITY'S STRATEGY ARE EXPLAINED IN DETAIL. A LIST OF RECOMMENDATIONS FOR OTHER LEAK DETECTION PROGRAMS IS GIVEN.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW007004

PUBLICATION DATE: OCT 81

TITLE: OZONE FOR MUNICIPAL WASTEWATER DISINFECTION.

PERSONAL AUTHOR: STOVER, ENOS L.

DESCRIPTOR: *CASE STUDIES; *DESIGN; *DISINFECTION; *FACILITIES; *MUNICIPALITIES; *OPERATIONS (WASTEWATER); *OZONE; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 74-76P.

ABSTRACT: THIS ARTICLE PROVIDES A STATE-OF-THE-ART REVIEW OF THE USE OF OZONE FOR MUNICIPAL WASTEWATER DISINFECTION. TOPICS ADDRESSED INCLUDE HISTORICAL USE OZONE, BASIC PRINCIPLES OF DISINFECTION, OZONE AND OZONE GENERATION, WATER QUALITY, RESEARCH RESULTS, AND A REVIEW OF U. S. TREATMENT PLANTS USING OZONE DISINFECTION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N10

IRIS ACCESSION NUMBER: EW007068

PUBLICATION DATE: FALL 81

TITLE: DETERMINATION OF THE DIRECTION OF GROUNDWATER FLOW.

PERSONAL AUTHOR: FETTER, C. W., JR.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANISOTROPIC AQUIFERS; *AQUIFERS; *DATA ANALYSIS; *GROUNDWATER FLOW; *HYDRAULICS; *HYDROLOGY; *MATHEMATICAL MODELS; *WATER RESOURCES

DESCRIPTIVE NOTE: 28-31P.

ABSTRACT: THIS ARTICLE PRESENTS A SYNTHESIS OF COMMONLY USED TECHNIQUES FOR MEASURING HYDRAULIC HEAD AND DIRECTIONAL HYDRAULIC CONDUCTIVITY IN THE FIELD IN ORDER TO DETERMINE GROUNDWATER FLOW DIRECTION IN ANISOTROPIC AQUIFERS. DETAILED DIAGRAMS AND MATHEMATICAL MODELS ARE PROVIDED AS AIDS.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N3

IRIS ACCESSION NUMBER: EW007069

PUBLICATION DATE: FALL 81

TITLE: MONITORING IN THE VADOSE ZONE PART I: STORAGE CHANGES.

PERSONAL AUTHOR: WILSON, L. G.

DESCRIPTOR: GEOLOGY; *GROUNDWATER; *HYDROLOGY; *MONITORING; *VADOSE ZONE; *WATER RESOURCES; *WATER STORAGE

DESCRIPTIVE NOTE: 32-41P.

ABSTRACT: THIS FIRST PART OF A THREE-PART SERIES ON TECHNIQUES FOR VADOSE ZONE MONITORING INCLUDES A DESCRIPTION OF THE VADOSE ZONE AND AN OUTLINE OF WHY AND HOW TO MONITOR IT. THIS ARTICLE ALSO DISCUSSES THE NEUTRON MOISTURE LOGGING METHOD OF DETERMINING STORAGE AND STORAGE CHANGES, AND OFFERS A CATALOG OF ALTERNATIVE METHODS.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N3

IRIS ACCESSION NUMBER: EW007070

PUBLICATION DATE: FALL 81

TITLE: SURFACE GEOPHYSICAL METHODS FOR GROUNDWATER MONITORING PART I.

PERSONAL AUTHOR: SENDLEIN, LYLE V. A.; YAZICIGIL, HASAN

DESCRIPTOR: CONTAMINATION; *GEOLOGY; *GEOPHYSICS; *GROUNDWATER; *HYDROLOGY; *MEASUREMENT; *MONITORING; *SEISMIC METHODS; *WATER RESOURCES

DESCRIPTIVE NOTE: 42-46P.

ABSTRACT: THIS IS THE FIRST OF TWO ARTICLES REVIEWING SURFACE GEOPHYSICAL METHODS THAT CAN BE USED IN A GROUNDWATER MONITORING PROGRAM. IN THIS ARTICLE, THE ROLE OF GEOPHYSICAL METHODS IN GROUNDWATER MONITORING, THE GEOLOGIC FRAMEWORK IN WHICH CONTAMINATED WATER OCCURS, AND SEISMIC METHODS ARE REVIEWED.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N3

IRIS ACCESSION NUMBER: EW007071

PUBLICATION DATE: FALL 81

TITLE: GROUNDWATER MONITORING TECHNIQUES FOR ARID ZONE HAZARDOUS WASTE DISPOSAL SITES.

PERSONAL AUTHOR: KAUFMANN, ROBERT F.; AND OTHERS

DESCRIPTOR: *ARID ZONES; *CASE STUDIES; CONTAMINATION; *GROUNDWATER; *HAZARDOUS WASTES; *HYDROLOGY; *MONITORING; *WATER RESOURCES; *WASTE DISPOSAL; *WATER QUALITY; WELLS

DESCRIPTIVE NOTE: 47-54P.

ABSTRACT: THIS ARTICLE DESCRIBES THE MONITORING RATIONALE AND MONITORING TECHNIQUES USED AT TWO DIFFERENT ARID ZONE HAZARDOUS WASTE DISPOSAL SITES. IT ALSO LOOKS AT METHODS AND RESULTS OF WATER QUALITY MONITORING CONDUCTED AT THESE SITES.

AVAILABILITY: GROUNDWATER MONITORING REVIEW, V1 N3

IRIS ACCESSION NUMBER: EW007072

PUBLICATION DATE: FALL 81

TITLE: MONITORING OF LEACHATE MIGRATION IN THE UNSATURATED ZONE IN THE VICINITY OF SANITARY LANDFILLS.

PERSONAL AUTHOR: JOHNSON, THOMAS M.; AND OTHERS

DESCRIPTOR: *CONTAMINATION; *LANDFILLS; *LEACHATES; *LYSIMETERS; *MONITORING; *RESEARCH REPORTS; *SOILS; *WASTE DISPOSAL; *WATER POLLUTION CONTROL; *WATER QUALITY; WELLS

DESCRIPTIVE NOTE: 55-63P.

ABSTRACT: THIS ARTICLE DISCUSSES THE USE OF OBSERVATION WELLS AND PRESSURE-VACUUM LYSIMETERS FOR MONITORING WATER QUALITY IN THE UNSATURATED ZONE BELOW THREE SANITARY LANDFILLS. IT ALSO OFFERS LABORATORY TESTS ON PRESSURE-VACUUM LYSIMETER INTAKE RATES AND CHANGES IN LEACHATE CONCENTRATIONS OVER TIME.

AVAILABILITY: GROUNDWATER MONITORING REVIEW, V1 N3

IRIS ACCESSION NUMBER: EW007073

PUBLICATION DATE: FALL 81

TITLE: THE KECK METHOD OF COMPUTING APPARENT RESISTIVITY.

PERSONAL AUTHOR: KECK, WILLIAM G.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *APPARENT RESISTIVITY; *CONTAMINATION; *DATA ANALYSIS; *GROUNDWATER; *KECK METHOD; *MONITORING; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 64-68P.

ABSTRACT: THIS ARTICLE DESCRIBES A REFINED METHOD OF CALCULATING APPARENT RESISTIVITY FOR APPLICATION IN DELINEATING PLUMES OF CONTAMINATED GROUNDWATER. THE STUDY SHOWS THAT THE PARTIAL KECK CORRECTION IS MOST ACCURATE FOR ANALYZING DATA FROM CONTAMINATION STUDIES.

AVAILABILITY: GROUNDWATER MONITORING REVIEW, V1 N3

IRIS ACCESSION NUMBER: EW007251

PUBLICATION DATE: 78

TITLE: FUNDAMENTALS OF PNEUMATICS - PART 3 TROUBLESHOOTING.

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *PNEUMATICS; *POST SECONDARY EDUCATION; SKILL DEVELOPMENT; *TROUBLESHOOTING

DESCRIPTIVE NOTE: 24P.

ABSTRACT: THIS GUIDE PRESENTS THE SCRIPT FOR A SLIDE-TAPE PROGRAM ON THE SKILLS THAT MUST BE MASTERED IN ORDER TO TROUBLESHOOT ANY PNEUMATIC SYSTEM. THIS AUDIOVISUAL INSTRUCTIONAL PROGRAM COVERS THE FOLLOWING TOPICS: IDENTIFYING COMPONENTS AND THEIR RELATIONSHIPS, IDENTIFYING PROBLEMS IN TERMS OF PRESSURE AND FLOW, ESTABLISHING A LOGICAL TROUBLESHOOTING SEQUENCE, AND RULES OF TROUBLESHOOTING.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 28TH ST., SE, GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW007416

PUBLICATION DATE: SEP 81

TITLE: LITERATURE STUDY OF THE BIODEGRADABILITY OF CHEMICALS IN WATER. VOLUME 1: BIODEGRADABILITY PREDICTION, ADVANCES IN AND CHEMICAL INTERFERENCES WITH WASTEWATER TREATMENT.

PERSONAL AUTHOR: GEATING, JOHN

DESCRIPTOR: *BIBLIOGRAPHIES; *BIODEGRADATION; CHEMICAL REACTIONS; *CHEMICAL INTERFERENCE; *CHEMICALS; CHEMISTRY; *LITERATURE REVIEWS; *MICROBIOLOGY; *MODELS; *RESEARCH REPORTS; *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 248P. PB82-100843

ABSTRACT: PRESENTED ARE THE RESULTS OF A FEASIBILITY STUDY TO CREATE AN ALGORITHM TO PREDICT BIODEGRADABILITY USING ONLY SUBSTRUCTURAL FRAGMENTS AND MOLECULAR WEIGHT. ALSO REPORTED ARE THE TECHNOLOGICAL ADVANCEMENTS IN WASTEWATER TREATMENT RETRIEVED FROM 1000 DOCUMENTS IDENTIFIED BY ON-LINE SEARCHING OF EIGHT DATABASES. REFERENCES TO COMMERCIAL LITERATURE AND SOME JOURNAL ARTICLES OBTAINED BY CANVASSING JAPANESE AND WEST GERMAN MANUFACTURERS ARE PRESENTED IN TABULAR FORM. CONCLUDING THIS VOLUME ARE A CONDENSATION OF ABSTRACTS FROM THE 1913-1974 LITERATURE DEALING ONLY WITH THE ADVERSE EFFECTS OF CHEMICALS ON WASTEWATER TREATMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007417

PUBLICATION DATE: SEP 81

TITLE: LITERATURE STUDY OF THE BIODERGRADABILITY OF CHEMICALS IN WATER. VOLUME 2: PERMUTATED INDEX OF CHEMICALS, MICROBIAL POPULATIONS, AND WASTEWATER TREATMENT SYSTEMS WITH BIBLIOGRAPHY.

PERSONAL AUTHOR: GEATING, JOHN

DESCRIPTOR: *BIBLIOGRAPHIES; *BIODEGRADATION; *CHEMICAL INDEXES; CHEMICAL REACTIONS; *CHEMICALS; *INDEXES; *LITERATURE REVIEWS; *MICROBIOLOGY; PROCESS CONTROL; *RESEARCH; *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 157P. PB82-100850

ABSTRACT: INCLUDED IS POST-1974 LITERATURE ON WASTEWATER TREATMENT FROM EIGHT DATA BASES. FROM 1000 ARTICLES EXAMINED, 600 WERE USED TO GENERATE A THREE-TIERED PERMUTATED INDEX KEYED TO AND PRESENTED WITH A 600 ARTICLE BIBLIOGRAPHY. THE THREE LEVELS OF THE INDEX ARE NAME OF CHEMICAL, NAME OF MICROBE AFFECTING OR AFFECTED BY THE CHEMICAL, AND TREATMENT PROCESS INVOLVED. ALSO PRESENTED ARE LISTS OF BIODEGRADABLE AND NONBIODEGRADABLE CHEMICALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007424

PUBLICATION DATE: SEP 81

TITLE: EVALUATION OF ON-SITE WASTEWATER TREATMENT AND DISPOSAL OPTIONS.

PERSONAL AUTHOR: BAUER, DAVID H.; AND OTHERS

DESCRIPTOR: *ALTERNATIVE SYSTEMS; *COST EFFECTIVENESS; *ENGINEERING; *ENVIRONMENTAL IMPACT; *EQUIPMENT; *EVALUATION; *ONSITE WASTEWATER TREATMENT; *OPERATIONS (WASTEWATER); TECHNOLOGY; *WASTEWATER DISPOSAL; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 234P. PB82-101635

ABSTRACT: PRESENTED IS A TECHNICAL EVALUATION OF ON-SITE WASTEWATER TREATMENT AND DISPOSAL OPTIONS. A LITERATURE REVIEW WAS CONDUCTED TO IDENTIFY ALL CONCEIVABLE ALTERNATIVE ON-SITE SYSTEMS, INCLUDING WASTEWATER MANIPULATION, TREATMENT, AND DISPOSAL OPTIONS. WASTEWATER MANIPULATION OPTIONS INCLUDED FLOW REDUCTION, WASTELOAD REDUCTION, AND WASTE SEGREGATION. TREATMENT OPTIONS INCLUDED DISINFECTION, BIOLOGICAL, AND PHYSICAL/CHEMICAL METHODS. DISPOSAL OPTIONS INCLUDED AIR, SOIL AND SURFACE WATER METHODS, AND PRACTICAL COMBINATIONS. BOTH TESTED AND UNTESTED SYSTEMS WERE IDENTIFIED. AN EQUIPMENT INVENTORY WAS PERFORMED TO DETERMINE THE AVAILABILITY OF HARDWARE AND COMPONENTS FOR THE SYSTEMS. THE SYSTEMS WERE EVALUATED ON THE BASIS OF PERFORMANCE, OPERATION AND MAINTENANCE, ENVIRONMENTAL ACCEPTABILITY AND TOTAL ANNUAL COST FOR 15 SPECIFIC SITE CONDITIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007430

PUBLICATION DATE: 81

TITLE: POLLUTION CONTROL TECHNOLOGY FOR INDUSTRIAL WASTEWATER.

PERSONAL AUTHOR: DE RENZO, D. J.

DESCRIPTOR: *DESIGN; *HAZARDOUS SUBSTANCES; *INDUSTRIAL WASTEWATER; *INDUSTRY; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SLUDGE; SLUDGE DISPOSAL; SLUDGE TREATMENT; *SURVEYS; *TECHNOLOGICAL ADVANCEMENT; *TECHNOLOGY; UNIT OPERATIONS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 712P. PRICE: $48.00

ABSTRACT: PROVIDED IS A SURVEY OF THE RELIABILITY AND EFFECTIVENESS OF 56 UNIT OPERATIONS IN INDUSTRIAL WATER POLLUTION CONTROL. THESE OPERATIONS INCLUDE 32 GENERIC WASTEWATER TREATMENT TECHNOLOGIES, CLASSIFIED AS PRELIMINARY, PRIMARY, SECONDARY OR TERTIARY AND 24 SLUDGE TREATMENT AND DISPOSAL TECHNOLOGIES. EACH PROCESS IS DESCRIBED BY THE TYPE OF CONTROL EQUIPMENT REQUIRED, THE MAJOR VARIATIONS OF DESIGN, FLOW DIAGRAMS, AND INFORMATION ON THE FOLLOWING: DESIGN CRITERIA, COMMON MODIFICATIONS, TYPICAL PERFORMANCE, APPLICATIONS AND LIMITATIONS OF THE PROCESS, RELIABILITY, CHEMICALS REQUIRED FOR OPERATION, RESIDUALS GENERATED AND ENVIRONMENTAL IMPACTS. SUMMARY TABLES FOR MOST TECHNOLOGIES ARE PROVIDED SHOWING THE CONCENTRATIONS OF VARIOUS POLLUTANTS IN THE EFFLUENTS, THE MINIMUM, MAXIMUM, MEDIAN AND MEAN REMOVAL EFFICIENCIES, AND THE NUMBER OF DATA POINTS USED TO GENERATE THE INFORMATION. CONVENTIONAL POLLUTANTS AS WELL AS EPA-CATEGORIZED PRIORITY POLLUTANTS AND HAZARDOUS SUBSTANCES ARE COVERED.

AVAILABILITY: NOYES DATA CORPORATION, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW007462

PUBLICATION DATE: FEB 82

TITLE: MANCHESTER'S MANAGEMENT MAKES ITS FUTURE.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *ADMINISTRATION; *MANAGEMENT; *OPERATIONS (WATER); *WATER RESOURCES; *WATERSHEDS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 10P.

ABSTRACT: THIS ARTICLE EXAMINES THE ADMINISTRATION, MANAGEMENT, AND OPERATIONS OF THE MANCHESTER, NEW HAMPSHIRE WATERWORKS. ATTENTION IS FOCUSED ON THEIR UNIQUE WATERSHED MANAGEMENT STRATEGY, PERSONNEL SELECTION AND TRAINING, AND FISCAL MANAGEMENT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N2

IRIS ACCESSION NUMBER: EW007463

PUBLICATION DATE: FEB 82

TITLE: EVOLUTION OF THE ENGINEER/MANAGER.

PERSONAL AUTHOR: LANG, MARTIN

DESCRIPTOR: *ADMINISTRATION; ECONOMIC FACTORS; *ENGINEERING; *MANAGEMENT; *MANPOWER NEEDS; REGULATIONS; *TRAINING NEEDS; *WATER MANAGEMENT; *WATER QUALITY; *WATER RESOURCES

ABSTRACT: THIS ARTICLE EXAMINES THE CHANGING ROLE OF THE ENGINEER/MANAGER IN CONCEIVING, DESIGNING, CONSTRUCTION AND ASSURING THE OPERABILITY OF WASTEWATER FACILITIES AND PROGRAMS. THE MAJOR SOCIAL MOVEMENTS AND SELECT GOVERNMENTAL REGULATIONS AFFECTING THE WATER RESOURCES INDUSTRY ARE DISCUSSED. FINALLY, RECOMMENDATIONS FOR THE TRAINING OF ENGINEERS/MANAGERS ARE GIVEN.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N2

IRIS ACCESSION NUMBER: EW007464

PUBLICATION DATE: FEB 82

TITLE: WATER AND WASTEWATER MANAGERS FACE THE FINANCIALLY TROUBLED 1980'S.

PERSONAL AUTHOR: HONEYCUTT, FRANK G.; LONDON, W. BOYD

DESCRIPTOR: BUDGETING; *ECONOMIC FACTORS; *FACILITIES; *FINANCIAL PLANNING; *FUNDING; *MANAGEMENT; *MUNICIPAL BONDS; *PLANNING; *SEWERS; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 24-26P.

ABSTRACT: THIS ARTICLE DISCUSSES IN DETAIL THE MANAGEMENT AND FINANCIAL STRATEGIES NEEDED FOR THE WATER AND WASTEWATER UTILITIES TO SUCCESSFULLY DEAL WITH THE DIFFICULT ECONOMIC CONDITIONS IN THE 1980'S. VARIOUS METHODS FOR FINANCING AND CONSTRUCTING WATER AND SEWER IMPROVEMENTS ARE EXAMINED; ATTENTION IS FOCUSED ON MUNICIPAL BONDS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N2

IRIS ACCESSION NUMBER: EW007465

PUBLICATION DATE: FEB 82

TITLE: A LOW-COST SECONDARY TREATMENT ALTERNATIVE.

PERSONAL AUTHOR: RICH, LINVIL G.

DESCRIPTOR: *COST-EFFECTIVENESS; *DESIGN; EQUIPMENT; *FACILITIES; *LAGOONS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 27-28P.

ABSTRACT: THIS ARTICLE REPORTS ON STUDIES WHICH HAVE SHOWN THAT DUAL-POWER, MULTICELLULAR AERATED LAGOON SYSTEMS OFFER A LOW-COST ALTERNATIVE TO HIGH MAINTENANCE, MECHANICALLY COMPLEX SECONDARY TREATMENT, ESPECIALLY FOR THE TREATMENT OF SMALL WASTEWATER DISCHARGES. DESIGN AND PERFORMANCE DATA,

EQUIPMENT, AND COST-EFFECTIVENESS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGMENT V129 N2

IRIS ACCESSION NUMBER: EW007466

PUBLICATION DATE: FEB 82

TITLE: HOW SAFETY BECAME A HABIT AT COLDWATER CREEK.

PERSONAL AUTHOR: KARNEY, PATRICK T.

DESCRIPTOR: *CASE STUDIES; *MANAGEMENT; *OCCUPATIONAL SAFETY; *OPERATIONS (WASTEWATER); *PLANNING; *PROGRAM DEVELOPMENT; *SAFETY; SUPERVISION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 30-32P.

ABSTRACT: THIS ARTICLE DESCRIBES THE PLANNING AND IMPLEMENTATION OF A WASTEWATER TREATMENT PLANT SAFETY PROGRAM. THIS PROGRAM WAS DEVELOPED AND SUPERVISED BY THE PLANT'S SUPERINTENDENT. ALL ASPECTS OF THE PROGRAM ARE EXAMINED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N2

IRIS ACCESSION NUMBER: EW007467

PUBLICATION DATE: FEB 82

TITLE: MOTIVATING EMPLOYEES.

PERSONAL AUTHOR: VAN DEUSEN, ROBERT H.

DESCRIPTOR: *ACHIEVEMENT; *BEHAVIOR; *EMPLOYER-EMPLOYEE RELATIONS; INCENTIVES; *MANAGEMENT; MORALE; *MOTIVATION; *MOTIVATION TECHNIQUES; *SUPERVISION

DESCRIPTIVE NOTE: 34-36P.

ABSTRACT: THIS ARTICLE DISCUSSES WAYS TO STRETCH NEWTON'S LAWS OF MOTION INTO METHODS THAT CAN HELP MANAGEMENT DEVELOP AND USE EMPLOYEE TALENTS. TOPICS ADDRESSED INCLUDE: MOTIVATIONAL THEORY, MASLOW'S HIERARCHY, MCGREGOR'S MANAGERIAL THEORIES, HERZBERG'S THEORY ON MOTIVATION, AND WAYS TO APPLY THESE WORKS TO REAL-WORLD PERSONNEL PROBLEMS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N2

IRIS ACCESSION NUMBER: EW007468

PUBLICATION DATE: FEB 82

TITLE: SLUDGE HAULING CHARGES FLOAT AWAY.

PERSONAL AUTHOR: GOOD, L. L.

DESCRIPTOR: *CASE STUDIES; *DESIGN; *ECONOMIC FACTORS;

EQUIPMENT; FLOTATION; HAULING; *LAND APPLICATION; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SLUDGE; *SLUDGE DISPOSAL; *SOLIDS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 40-42P.

ABSTRACT: THIS ARTICLE DESCRIBES HOW A FLORIDA WASTEWATER TREATMENT FACILITY HAS MINIMIZED DISPOSAL HAULING OF AEROBICALLY DIGESTED ACTIVATED SLUDGE BY INCREASING SOLIDS CONCENTRATION. A UNIQUE DISSOLVED AIR FLOTATION SYSTEM WHICH CONCENTRATES SLUDGE SOLIDS FROM 1.2 TO 4.0 PERCENT IS DESCRIBED IN DETAIL.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N2

IRIS ACCESSION NUMBER: EW007469

PUBLICATION DATE: FEB 82

TITLE: GALVANIZED STEEL STALLS TREATMENT PLANT CORROSION.

PERSONAL AUTHOR: HARMON, BOBBIE

DESCRIPTOR: *CORROSION; *CORROSION CONTROL; *EQUIPMENT; *FACILITIES; GALVANIZED ZINC; *GALVANIZING; *MAINTENANCE; *MAINTENANCE (PREVENTATIVE); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 42-43P.

ABSTRACT: THIS ARTICLE DESCRIBES HOW MAJOR STRUCTURES AND COMPONENTS OF BALTIMORE'S BACK RIVER WASTEWATER TREATMENT PLANT ARE PROTECTED FROM CORROSION BY THE EXTENSIVE USE OF HOT DIP GALVANIZING WITH ZINC. THIS PROCESS IS DISCUSSED AS WELL AS THE STRATEGY FOR EQUIPMENT SELECTION AND SUPPLIERS OF INFORMATION ON GALVANIZING.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N2

IRIS ACCESSION NUMBER: EW007470

PUBLICATION DATE: FEB 82

TITLE: HOW SCREEN MOUNTING AFFECTS MICROSCREENING HYDRAULICS.

PERSONAL AUTHOR: WITTMANN, JOHN W.

DESCRIPTOR: *DESIGN; *EQUIPMENT; ENGINEERING; *FILTERS; *HYDRAULICS; *MICROSCREENING; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; SOLIDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 44-47P.

ABSTRACT: THIS ARTICLE EXAMINES MICROSCREEN HYDRAULICS IN DETAIL AND DISCUSSES HOW THE ARRANGEMENT USED TO MOUNT THE FILTERING MEDIUM IN A MICROSCREEN DEVICE CAN AFFECT THE HYDRAULIC CAPABILITY OF THE UNIT. TWO SCREENING MEDIA MOUNTING CONCEPTS, THE SANDWICH DESIGN AND THE SCREENING GRID, ARE EXAMINED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N2

IRIS ACCESSION NUMBER: EW007523

PUBLICATION DATE: MAR 82

TITLE: WATER CONSERVATION AT WASTEWATER TREATMENT PLANTS.

PERSONAL AUTHOR: GERARDI, MICHAEL H.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *CONSERVATION; *COST-EFFECTIVENESS; DROUGHT; EFFLUENTS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT; *WATER CONSERVATION; *WATER RESOURCES; *WATER USE

DESCRIPTIVE NOTE: 59-60P.

ABSTRACT: THIS ARTICLE REPORTS ON A SUCCESSFUL WATER CONSERVATION PROGRAM AT TWO PENNSYLVANIA WASTEWATER TREATMENT PLANTS. WATER CONSERVATION MEASURES INCLUDED THE INSTALLATION OF FLOW RESTRICTORS AND NEW WATER FAUCET WASHERS; A THREE MINUTE LIMIT SHOWER TIME; AND THE USE OF EFFLUENT TO WASH MACHINERY, FLOORS, AND VEHICLES, AND TO HOSE TREATMENT TANKS AND DIGESTER FOAM. COST SAVINGS ARE ALSO DISCUSSED.

AVAILABILITY: PUBLIC WORKS V113 N3

IRIS ACCESSION NUMBER: EW007524

PUBLICATION DATE: MAR 8

TITLE: BRIDGING THE WATER SUPPLY GAP.

PERSONAL AUTHOR: WHEELER, WILLIAM; CRUZ, EDWARD

DESCRIPTOR: BRIDGES; *CASE STUDIES; *CONSTRUCTION; *DESIGN; *DROUGHT; EMERGENCIES; *PIPES (WATER); *WATER DISTRIBUTION; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 62-63P.

ABSTRACT: THIS ARTICLE DISCUSSES THE DESIGN AND CONSTRUCTION OF A 24 INCH PIPELINE TO FURNISH EMERGENCY WATER TO DROUGHT-STRICKEN NEW JERSEY. THE 10,500 FOOT LONG PIPELINE SPANNING THE GEORGE WASHINGTON BRIDGE WAS COMPLETED IN UNDER FOUR MONTHS AND THE ARTICLE EXAMINES THE FACTORS RELATING TO FAST, EFFICIENT JOB EXECUTION.

AVAILABILITY: PUBLIC WORKS V113 N3

IRIS ACCESSION NUMBER: EW007525

PUBLICATION DATE: MAR 82

TITLE: TIME-SHARED COMPUTER TECHNOLOGY FOR THE WATER AND WASTEWATER INDUSTRIES.

PERSONAL AUTHOR: PETERSON, WINFIELD A.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTERS; *DATA MANAGEMENT; INSTRUMENTATION; *MANAGEMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *RECORD-KEEPING; *RECORDS; *TECHNOLOGICAL ADVANCEMENTS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 65-67P.

ABSTRACT: THIS ARTICLE EXAMINES A NEW CUSTOMIZED TIME-SHARED RECORDS AND OPERATIONS DATA SYSTEM DESIGNED TO ASSIST TREATMENT PLANT PERSONNEL IN ASSEMBLING, ORGANIZING, STORING, ANALYZING, AND REPORTING OPERATIONAL DATA. THE DESIGN, USE, AND APPLICATIONS OF THE RODA (RECORDS AND OPERATIONS DATA ANAYSIS) ARE DISCUSSED.

AVAILABILITY: PUBLIC WORKS V113 N3

IRIS ACCESSION NUMBER: EW007526

PUBLICATION DATE: MAR 82

TITLE: CONTROLLING SULFIDES AND ODORS IN SEWERS - PART ONE.

PERSONAL AUTHOR: VIVONA, MORRIS A.; WHALEN, GARY A.

DESCRIPTOR: *AERATION; *CASE STUDIES; *COST EFFECTIVENESS; *DESIGN; EQUIPMENT; FORCE MAINS; *ODORS; *PERFORMANCE EVALUATION; *SEWERS; *SULFIDES; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 73-76P.

ABSTRACT: THIS ARTICLE DESCRIBES THE EXPERIENCES THE GLOUCESTER COUNTY (NEW JERSEY) UTILITIES AUTHORITY HAD WITH THE USE OF AIR INJECTION INTO FORCE MAINS FOR THE CONTROL OF SULFIDES AND ODORS IN SEWERS. TOPICS ADDRESSED IN THIS CASE STUDY INCLUDE: SYSTEM DESIGNS, COMPRESSOR CONTROLS, AIR COMPRESSION ENERGY REQUIREMENT, COSTS, AEROBIC METABOLISM CONTROL, AND OVERALL PERFORMANCE DATA.

AVAILABILITY: PUBLIC WORKS V113 N3

IRIS ACCESSION NUMBER: EW007527

PUBLICATION DATE: MAR 82

TITLE: PHILADELPHIA'S COMPOST MARKETING PROGRAM.

PERSONAL AUTHOR: NELSON, MICHAEL; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *COMPOSTING; *ECONOMIC FACTORS; *LAND APPLICATION; *MANAGEMENT; *MARKETING; PUBLIC HEALTH; *SLUDGE; *SLUDGE DISPOSAL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 77-78, 115P.

ABSTRACT: THIS ARTICLE EXAMINES THE VARIOUS ALTERNATIVES FOR DISPOSAL AND USE OF SLUDGE IN A NEW PROGRAM BEING IMPLEMENTED BY THE PHILADELPHIA WATER DEPARTMENT. FEDERAL REGULATIONS HAVE PHASED-OUT OCEAN DUMPINGAND HAS INCREASED EMPHASIS ON LIQUID APPLICATION, STRIPMINE RECLAMATION, GIVE-AWAY PROGRAMS, AND MARKETING. SPECIFIC ATTENTION IS FOCUSED ON MARKETING SLUDGE FOR PUBLIC SALE.

AVAILABILITY: PUBLIC WORKS V113 N3

IRIS ACCESSION NUMBER: EW007547

PUBLICATION DATE: MAR 82

TITLE: ASSIGNMENT DIVERSITY HONES MANAGEMENT SKILLS AT DWU.

DESCRIPTOR: *ADMINISTRATION; *CASE STUDIES; *MANAGEMENT; *MANAGEMENT DEVELOPMENT; MANAGEMENT SYSTEMS; *OPERATIONS; *SUPERVISION; *STAFF DEVELOPMENT; *TEXAS; UTILITIES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 12,75P.

ABSTRACT: THIS ARTICLE EXAMINES THE ADMINISTRATION AND MANAGEMENT STRATEGIES OF THE DALLAS, TEXAS WATER UTILITIES. ATTENTION IS FOCUSED ON STAFF DEVELOPMENT, CONSUMMATE PLANNING, AND STAFF PROFESSIONALISM. EFFECTIVE STRATEGIES INCLUDE MOVING MANAGERS THROUGHOUT THE ORGANIZATION ON A PLANNED SCHEDULE, GIVING MANAGERS SPECIAL ASSIGNMENTS SUCH AS SERVING ON A TASK FORCE, AND BY FILLING A PERCENTAGE OF POSITIONS WITH PEOPLE FROM OTHER AREAS OF EXPERIENCE OTHER THAN WATER AND WASTEWATER TECHNOLOGY.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N3

IRIS ACCESSION NUMBER: EW007548

PUBLICATION DATE: MAR 82

TITLE: PROTECTING THE SOURCE.

PERSONAL AUTHOR: ROBERTS, SUSAN A.; KRISHNASWAMI, S. K.

DESCRIPTOR: *CONTAMINATION; *DRINKING WATER; *GROUNDWATER; HYDROLOGY; *LAND USE; *MANAGEMENT; MONITORING; *POLLUTION CONTROL; *WATER QUALITY; *WATER RESOURCES; *WATERSHEDS; *WATER SOURCE; *WATER SUPPLY

DESCRIPTIVE NOTE: 28-31P.

ABSTRACT: THIS ARTICLE DISCUSSES VARIOUS ASPECTS OF WATER SUPPLY SOURCE MANAGEMENT. TOTAL WATERSHED MANAGEMENT INCLUDING FORESTRY PRACTICES, HYDROLOGIC CONSIDERATIONS, WASTE DISPOSAL PRACTICES, AND HUMAN LAND USE ARE EXAMINED. ALSO INCLUDED IS INFORMATION RELATING TO GROUNDWATER CONTAMINATION AND MONITORING AND INSPECTION CONSIDERATIONS. ELEVEN PRINCIPLES OF SOURCE PROTECTION ARE LISTED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N3

IRIS ACCESSION NUMBER: EW007549

PUBLICATION DATE: MAR 82

TITLE: PRICE OR PERSUASION?

PERSONAL AUTHOR: WENDERS, JOHN T.

DESCRIPTOR: *ARIZONA; *CASE STUDIES; *CONSERVATION; *ECONOMIC FACTORS; EVALUATION; *NATURAL RESOURCES; *PUBLIC PARTICIPATION; *WATER SUPPLY; *WATER CONSERVATION; WATER RATES; *WATER RESOURCES; *WATER USE

DESCRIPTIVE NOTE: 32834P.

ABSTRACT: THIS ARTICLE REPORTS ON THE EFFORTS OF THE CITY OF TUCSON, ARIZONA, TO ENCOURAGE REDUCTION IN DOMESTIC WATER CONSUMPTION. ATTENTION IS FOCUSED ON PRICE INCREASES AND PUBLICITY CAMPAIGNS AS WATER CONSERVATION STRATEGIES. DATA ARE PROVIDED WHICH SUGGEST THE FORMER STRATEGY MAY HAVE BEEN MOST SUCCESSFUL.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N3

IRIS ACCESSION NUMBER: EW007550

PUBLICATION DATE: MAR 82

TITLE: STRATEGIES FOR REUSE AND CONSERVATION.

PERSONAL AUTHOR: POPKIN, BARNEY P.

DESCRIPTOR: *CONSERVATION; *COST-EFFECTIVENESS; *EVALUATION; *MANAGEMENT; *POLICY; *RECYCLING; *STRATEGIES; *WATER CONSERVATION; *WATER RESOURCES; *WATER REUSE; WATER USE

DESCRIPTIVE NOTE: 36,40-41P.

ABSTRACT: THIS ARTICLE EXAMINES THE COST-EFFECTIVENESS OF VARIOUS WATER CONSERVATION AND REUSE STRATEGIES. ATTENTION IS FOCUSED ON STRUCTURAL STRATEGIES INVOLVING THE USE OF HARDWARE AND SYSTEMS, AND NONSTRUCTURAL STRATEGIES INVOLVING PRIMARILY USE OF SOFTWARE, POLICIES, AND OPERATIONS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N3

IRIS ACCESSION NUMBER: EW007551

PUBLICATION DATE: MAR 82

TITLE: BILLING DATA AIDS UTILITY PLANNING.

PERSONAL AUTHOR: HOOK, N. K.; JR.

DESCRIPTOR: *BILLING SYSTEM; *CASE STUDIES; *COMPUTER APPLICATIONS; *DATA BASES; *DATA COLLECTION; EVALUATION; *INFORMATION SERVICES; *MANAGEMENT; *PLANNING; *UTILITIES; *WATER SUPPLY

DESCRIPTIVE NOTE: 42844P.

ABSTRACT: THIS ARTICLE EXAMINES A NEW COMPUTER-ASSISTED BILLING SYSTEM USED BY ARLINGTON COUNTY, VIRGINIA, WHICH GREATLY EXPANDS THE UTILITY'S PLANNING CAPABILITIES. THE MANY FEATURES OF THE BILLING SYSTEM ARE EXPLAINED IN DETAIL AS ARE THE VARIOUS APPLICATIONS THAT THE DATA PROVIDE FOR FUTURE PLANNING.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N3

IRIS ACCESSION NUMBER: EW007552

PUBLICATION DATE: MAR 82

TITLE: SAVING WATER SCENICALLY.

PERSONAL AUTHOR: BURCH, JOHN

DESCRIPTOR: AESTHETICS; *CASE STUDIES; *DESIGN; *ECOLOGICAL FACTORS; *EFFLUENTS; EQUIPMENT; *FACILITIES; *NEW MEXICO; *OPERATIONS (WASTEWATER); PLANNING; RECLAMATION; *RECYCLING; *WASTEWATER RECLAMATION; *WASTEWATER TREATMENT; *WATER CONSERVATION; *WATER REUSE

DESCRIPTIVE NOTE: 46-47P.

ABSTRACT: THIS ARTICLE EXAMINES THE INNOVATIVE DESIGN OF A WASTEWATER RECLAMATION SYSTEM FOR A NEW MEXICO RESORT WHICH COMBINES EFFECTIVE WATER RECYCLING WITH AESTHETIC AND ECOLOGICAL SAFEGUARDS. THE SYSTEM PROVIDES SECONDARY TREATMENT THROUGH A PACKAGED, EXTENDED-AERATION PLANT WITH EFFLUENT USED FOR PASTURE IRRIGATION OR LAWN AND LANDSCAPE IRRIGATION. ALL ASPECTS OF THE SYSTEM'S DESIGN, EQUIPMENT, AND OPERATION ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N3

IRIS ACCESSION NUMBER: EW007553

PUBLICATION DATE: MAR 82

TITLE: RIGHT VELOCITY KEEPS THE SOLIDS UP.

PERSONAL AUTHOR: COOK, BEN

DESCRIPTOR: *CASE STUDIES; *EQUALIZATION BASINS; EQUIPMENT; *FACILITIES; *FLOW CONTROL; *MIXERS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 49-50P.

ABSTRACT: THIS ARTICLE DESCRIBES THE SUCCESSFUL USE OF SUBMERSIBLE MIXERS FOR CONTROLLING FLOW IN A VERY LARGE EQUALIZATION BASIN. THE LARGE VARIETY AND QUANTITY OF SOLID OBJECTS IN THE RAW SEWAGE ENTERING THE EQUALIZATION BASIN CREATED DIFFICULT OPERATING CONDITIONS FOR TRADITIONAL MIXERS. THE SPECIFIC EQUIPMENT AND USES OF THE SUBMERSIBLE MIXER ARE DISCUSSED IN DETAIL.

34

50

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N3

IRIS ACCESSION NUMBER: EW007554

PUBLICATION DATE: MAR 82

TITLE: TACKLING SEASONAL LOAD VARIATIONS.

PERSONAL AUTHOR: CONNELL, COLONEL NORMAN

DESCRIPTOR: *CASE STUDIES; COASTAL AREAS; *DESIGN; *EQUIPMENT; *FACILITIES; *LOAD VARIATIONS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 52854P.

ABSTRACT: THIS ARTICLE EXAMINES HOW A COASTAL POTW MODIFIED PROCESS DESIGN AND UPDATED PROCEDURES TO SUCCESSFULLY OVERCOME GROSS SEASONAL DIFFERENCES IN WASTEWATER LOAD. ALL ASPECTS OF THE FACILITY'S DESIGN, EQUIPMENT, AND OPERATIONS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N3

IRIS ACCESSION NUMBER: EW007555

PUBLICATION DATE: MAR 82

TITLE: BIOLOGICAL PROCESS TROUBLESHOOTING - A GUIDE TO IMPROVED WASTE PLANT OPERATION.

PERSONAL AUTHOR: GRIMESTAD, DWIGHT E.; WETEGROVE, ROBERT L.

DESCRIPTOR: *BIOLOGICAL TREATMENT; *BULKING; *DEFLOCCULATION; *DISPERSED FLOC; *GUIDES; MICROBIOLOGY; *OPERATIONS (WASTEWATER); *SLUDGE; *TROUBLESHOOTING; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 25-29P.

ABSTRACT: THIS ARTICLE DISCUSSES THE CAUSES AND CURES OF THE MOST COMMON ACTIVATED SLUDGE PROBLEMS: BULKING, DEFLOCCULATION, DISPERSED FLOC, AND FLOATING SECONDARY SLUDGE. DETAILED COLOR PHOTOMICROGRAPHS ILLUSTRATE CLASSIC EXAMPLES OF EACH PROBLEM TYPE. A MICROBIOLOGICAL GLOSSARY AND RECOMMENDATIONS ARE ALSO PROVIDED.

AVAILABILITY: POLLUTION ENGINEERING, V14 N3

IRIS ACCESSION NUMBER: EW007556

PUBLICATION DATE: MAR 82

TITLE: A NEW BUSINESS OPPORTUNITY FOR THE '80'S.

PERSONAL AUTHOR: LORENZ, WILLIAM T.

DESCRIPTOR: *BUSINESS OPPORTUNITIES; *ECONOMIC FACTORS; *INDUSTRY; *MAINTENANCE; *MARKETING; MUNICIPALITIES; *NEEDS ASSESSMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *UTILITIES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 34-37P.

ABSTRACT: THIS ARTICLE DISCUSSES THE MARKET FOR OPERATION AND MAINTENANCE SERVICES AT WATER AND WASTEWATER TREATMENT PLANTS. TOPICS ADDRESSED INCLUDE: MUNICIPAL, INDUSTRIAL, AND PRIVATE TREATMENT FACILITIES AND THEIR RESPECTIVE MARKETS, COMMON TREATMENT PLANT PROBLEMS, AVAILABILITY OF TRAINING PROGRAMS, ESTIMATED OPERATIONS AND MAINTENANCE COSTS, FIRMS OFFERING OPERATIONS AND MAINTENANCE SERVICES, AND A REVIEW OF FUTURE MARKET NEEDS.

AVAILABILITY: POLLUTION ENGINEERING, V14 N3

IRIS ACCESSION NUMBER: EW007557

PUBLICATION DATE: MAR 82

TITLE: DO SYSTEM CUTS ENERGY AND MAINTENANCE COSTS.

PERSONAL AUTHOR: SCALISE, MICHAEL A.

DESCRIPTOR: *CASE STUDIES; *COST-EFFECTIVENESS; *DISSOLVED OXYGEN; *EFFLUENTS; EQUIPMENT; *ILLINOIS; MAINTENANCE; MONITORING; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 38-39P.

ABSTRACT: THIS ARTICLE DISCUSSES HOW THE WHEATON, ILLINOIS SANITARY DISTRICT HAS REDUCED ENERGY AND MAINTENANCE COSTS WHILE IMPROVING COMPLIANCE WITH FEDERAL EFFLUENT STANDARDS BY INSTALLING A NEW DISSOLVED OXYGEN SYSTEM. PROBLEM IDENTIFICATION, EQUIPMENT TESTING, DOCUMENTATION OF SAVINGS, AND COMPLIANCE DATA ARE DISCUSSED.

AVAILABILITY: POLLUTION ENGINEERING, V14 N3

IRIS ACCESSION NUMBER: EW007558

PUBLICATION DATE: MAR 82

TITLE: GET MORE OUT OF HIGH SPEED RO PUMPS.

PERSONAL AUTHOR: STEBBINS, WAYNE

DESCRIPTOR: *COST-EFFECTIVENESS; *GUIDELINES; *MAINTENANCE; PIPES; *PUMPS; *PURIFICATION; RECOMMENDATIONS; *REVERSE OSMOSIS

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: THIS ARTICLE DESCRIBES OPERATING AND MAINTENANCE PROCEDURES FOR REVERSE OSMOSIS PUMPS THAT CAN ENHANCE PUMP EFFICIENCY AND COST-EFFECTIVENESS. SPECIFIC OPERATING AND MAINTENANCE TECHNIQUES DISCUSSED FOCUS ON MINIMUM AND MAXIMUM FLOW, PIPING, AND SYSTEM FLUSHING AND CLEANING.

AVAILABILITY: POLLUTION ENGINEERING, V14 N3

IRIS ACCESSION NUMBER: EW007559

PUBLICATION DATE: MAR 82

TITLE: TIPS FOR MAKING IT WITH WIRE CLOTH.

PERSONAL AUTHOR: CAMPBELL, JOHN

DESCRIPTOR: *EQUIPMENT; *FILTERS; *GUIDELINES; *PERFORMANCE EVALUATION; *POLLUTION CONTROL; *RECOMMENDATIONS; SCREENING; *WIRE CLOTH

DESCRIPTIVE NOTE: 42-43P.

ABSTRACT: THIS ARTICLE REVIEWS THE APPLICATIONS AND LIMITATIONS OF WIRE CLOTH IN POLLUTION CONTROL OPERATIONS. PREVENTATIVE GUIDELINES ARE DISCUSSED WHICH INCLUDE FORMING WIRE CLOTH, DESIGN APPLICATIONS, DESIGN SPECIFICATIONS, STOCK CLOTH SELECTION, MANUFACTURING LIMITS, AND TECHNICAL ASSISTANCE.

AVAILABILITY: POLLUTION ENGINEERING, V14 N3

IRIS ACCESSION NUMBER: EW007560

PUBLICATION DATE: MAR 82

TITLE: RATING SLUDGE DEWATERING DEVICES.

PERSONAL AUTHOR: BAKER, RICHARD J.

DESCRIPTOR: *DEWATERING; *EQUIPMENT; *FILTERS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RESEARCH REPORTS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 45-46P.

ABSTRACT: THIS ARTICLE REPORTS ON A STUDY THAT EVALUATED FOUR COMMERCIALLY AVAILABLE SLUDGE DEWATERING DEVICES. THE FOUR DEVICES CONSIDERED IN THE STUDY WERE CENTRIFUGE, VACUUM FILTER, BELT FILTER, AND PRESSURE FILTER. IN ADDITION, A LITERATURE SEARCH WAS CONDUCTED TO FIND AS MANY COMMON TESTING PARAMETERS AS POSSIBLE THAT COULD BE APPLIED TO ALL FOUR DEWATERING DEVICES. USING A RATING SYSTEM SPECIFICALLY DESIGNED FOR THIS STUDY, THE BELT FILTER PERFORMED BEST.

AVAILABILITY: POLLUTION ENGINEERING, V14 N3

IRIS ACCESSION NUMBER: EW007563

PUBLICATION DATE: MAR 82

TITLE: MANPOWER NEEDS IN WASTEWATER TREATMENT AND COLLECTION SYSTEMS FOR THE YEARS 1980 TO 2000.

PERSONAL AUTHOR: BRYANT, JAMES O.

DESCRIPTOR: *EMPLOYMENT; *MANPOWER NEEDS; *OPERATORS (WASTEWATER); OPERATOR TRAINING; POLLUTION CONTROL; SALARIES; STAFFING; *SURVEYS; WASTE DISPOSAL; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 213-228P.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007564

PUBLICATION DATE: MAR 82

TITLE: NORTH WASTEWATER TREATMENT FACILITY MEMPHIS, TENNESSEE.

DESCRIPTOR: *CASE STUDIES; *DESIGN; EQUIPMENT; *FACILITIES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; PROCESS DESIGN; *TENNESSEE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 229-230P.

ABSTRACT: THIS REPORT PRESENTS OPERATING DATA FOR THE NORTH WASTEWATER TREATMENT FACILITY OF MEMPHIS, TENNESSEE. INFORMATION ON DESIGN, CONSTRUCTION, OPERATING CAPACITIES, PERFORMANCE STATISTICS, AND OPERATING PARAMETERS ARE INCLUDED FOR THIS 135 MGD FACILITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007565

PUBLICATION DATE: MAR 82

TITLE: CONTROL OF ALGAL FILAMENTOUS BULKING AT THE SOUTHERLY WASTEWATER TREATMENT PLANT.

PERSONAL AUTHOR: ROZICH, ALAN F.; AND OTHERS

DESCRIPTOR: *ALGAE; *BULKING; *CASE STUDIES; *DISSOLVED OXYGEN; *FATTY ACIDS; MAINTENANCE; *OHIO; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 231-237P.

ABSTRACT: THE SOUTHERLY WASTEWATER TREATMENT PLANT IN COLUMBUS, OHIO, HAS SUFFERED HISTORICALLY FROM WARM WEATHER BULKING CAUSED BY THE FILAMENTOUS CYANOBACTERIUM SCHIZOTHRIX CALCIOCOLA (ALIAS PHORMIDUM SPP.). LABORATORY STUDIES REPORTED PREVIOUSLY INDICATED THAT THE PROLIFERATION OF THE ALGA WAS CAUSED JOINTLY BY HIGH VOLATILE FATTY ACID (VFA) CONCENTRATIONS AND LOW DISSOLVED OXYGEN (DO) CONCENTRATIONS IN PLUG-FLOW REACTORS. FULL-SCALE FIELD STUDIES SHOWED THAT ELIMINATION OF EITHER THE HIGH VFA LEVELS, THE LOW DO LEVELS, OR BOTH WOULD CURE THE BULKING PROBLEM. IT WAS ALSO SHOWN THAT VFA-DO CONTROL WAS SUPERIOR TO CHLORINATION IN PREVENTING FILAMENTOUS BULKING.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007566

PUBLICATION DATE: MAR 82

TITLE: IMPROVEMENTS IN FOAM FLOTATION FOR LEAD REMOVAL.

PERSONAL AUTHOR: SLAPIK, MICHAEL A.; AND OTHERS

DESCRIPTOR: *COLLOIDS; ECONOMIC FACTORS; *EFFLUENTS; *FLOTATION; *FOAMING; *HEAVY METALS; *LEAD; MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 238-243P.

ABSTRACT: THIS PAPER DESCRIBES MODIFICATIONS TO AN ADSORBING COLLOID FOAM FLOTATION COLUMN AND CHANGES IN OPERATIONAL TECHNIQUES THAT INCREASED LEAD REMOVAL EFFICIENCY. REQUIRED CHEMICAL DOSES WERE MUCH LESS THAN THOSE IN EARLIER STUDIES. ECONOMIC CALCULATIONS SHOWED THAT FOAM FLOTATION FOR LEAD REMOVAL IS CHEAPER THAN LIME PRECIPITATION (ABOUT HALF). IN ADDITION, SLUDGE VOLUMES ARE LOWER, AND SPACE REQUIREMENTS ARE LESS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007567

PUBLICATION DATE: MAR 82

TITLE: RAPID INFILTRATION TREATMENT OF PRIMARY AND SECONDARY EFFLUENTS.

PERSONAL AUTHOR: CARLSON, R. R.; AND OTHERS

DESCRIPTOR: *BASINS; *EFFLUENTS; *FACILITIES; HYDROLOGY; *INFILTRATION; *LAND APPLICATION; MUNICIPALITIES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PRIMARY TREATMENT; *SECONDARY TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 270-280P.

ABSTRACT: THIS STUDY ASSESSED THE CAPABILITY OF A RAPID INFILTRATION SYSTEM FOR UPGRADING PRIMARY AND SECONDARY EFFLUENTS FROM A MUNICIPAL WASTEWATER TREATMENT PLANT. THIS WAS DONE BY MONITORING THE INFLUENT AND EFFLUENT QUALITY VARIATIONS AT RAPID INFILTRATION DEMONSTRATION FACILITY OVER A PERIOD OF SEVERAL YEARS. IN GENERAL, THE BASINS OPERATED WELL DURING THE ENTIRE PERIOD OF PRIMARY AND SECONDARY EFFLUENT APPLICATION. EFFLUENT VALUES FOR CHEMICAL OXYGEN DEMAND WERE GENERALLY IN THE 8- TO 20-MG/1 RANGE FOR BOTH STUDY PERIODS. BACTERIAL REMOVALS IN THE BASINS WERE EXCELLENT, WITH FECAL COLIFORM REMOVALS GENERALLY IN EXCESS OF 99%.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007568

PUBLICATION DATE: MAR 82

TITLE: EVALUATION OF EPA UN-IONIZED AMMONIA TOXICITY CRITERIA.

PERSONAL AUTHOR: SZUMSKI, DANIEL S.; AND OTHERS

DESCRIPTOR: *AMMONIA; *AQUATIC ENVIRONMENTS; CHEMICAL ANALYSIS; *DATA INTERPRETATION; *ENVIRONMENTAL PROTECTION AGENCY; *EVALUATION; *FISHERIES; *STANDARDS; *TOXICITY; *TOXIC SUBSTANCES; *WATER QUALITY

DESCRIPTIVE NOTE: 281-291P.

ABSTRACT: TOXIC UN-IONIZED AMMONIA MUST BE CONTROLLED IN RECEIVING WATERS TO MINIMIZE ACUTE AND CHRONIC IMPACTS TO THE NATIVE BIOLOGICAL COMMUNITY. THE ENVIRONMENTAL PROTECTION AGENCY'S 'RED BOOK' REPORTS ACUTE AND CHRONIC EFFECT LEVELS THAT FORM THE BASIS FOR THE NH3 WATER QUALITY CRITERION FOR SALMONID FISHERIES. THIS PAPER EVALUATES THE REPORTED UN-IONIZED AMMONIA TOXICITY DATA AND CONCLUDES THAT A FUNDAMENTAL INTERPRETIVE ERROR EXISTS IN THE 'RED BOOK' RATIONALE FOR TRANSLATING THE UN-IONIZED AMMONIA LC50 DATA INTO A WATER QUALITY CRITERION. AN ANALYSIS OF THE RELATIONSHIPS BETWEEN ENVIRONMENTAL VARIABLES AND AMMONIA TOXICITY ILLUSTRATES THAT THE TOXICITY SEEMS DIRECTLY RELATED TO A CONSTANT CONCENTRATION OF UN-IONIZED AMMONIA AT THE GILL SURFACE OF THE FISH. GILL SURFACE CONCENTRATIONS OF 0.2 AND 0.4 MG/1 FOR NH3-N SEEM TO BE THE ACUTE TOXICITY THRESHOLDS FOR COLD AND WARMWATER SPECIES, RESPECTIVELY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007569

PUBLICATION DATE: MAR 82

TITLE: DESIGN OF MONITORING STUDIES FOR PRIORITY POLLUTANTS.

PERSONAL AUTHOR: CHAPMAN, PETER M.; AND OTHERS

DESCRIPTOR: *COST-EFFECTIVENESS; *ENVIRONMENTAL PROTECTION AGENCY; *MONITORING; *POLLUTANTS; *SAMPLING; *STANDARDS; *TOXICITY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 292-297P.

ABSTRACT: IMPLEMENTING AFFORDABLE ENVIRONMENTAL MONITORING AND ASSESSMENT PROGRAMS FOR THE 129 COMPOUNDS DESIGNATED AS PRIORITY POLLUTANTS BY THE U. S. ENVIRONMENTAL PROTECTION AGENCY (EPA) CONTINUES TO POSE PROBLEMS IN SAMPLING DESIGN. THIS PAPER PROVIDES INFORMATION THAT WILL ALLOW FOR THE DESIGN OF COST-EFFECTIVE PROGRAMS BASED ON SOUND SCIENTIFIC

PRINCIPLES. THE CURRENT STATE OF KNOWLEDGE REGARDING FATE AND EFFECTS IS USED TO CATEGORIZE EACH PRIORITY POLLUTANT BASED ON CHEMICAL BEHAVIOR AND BIOLOGICAL SIGNIFICANCE. RECOMMENDATIONS ARE THEN MADE CONCERNING SAMPLING PARTICULAR ENVIRONMENTAL COMPONENTS BASED ON THE ANTICIPATED FATE AND EFFECT OF EACH POLLUTANT. THIS WORK PROVIDES AN INITIAL AND FLEXIBLE STARTING POINT FOR THE DESIGN AND IMPLEMENTATION OF SITE-SPECIFIC ENVIRONMENTAL MONITORING PROGRAMS FOR PRIORITY POLLUTANTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007570

PUBLICATION DATE: MAR 82

TITLE: TREATMENT OF OIL WASTEWATER FROM ONSHORE OPERATIONS.

PERSONAL AUTHOR: LYSYJ, IHOR

DESCRIPTOR: *ALASKA; *BALLAST; *CASE STUDIES; *EFFLUENTS; *HYDROCARBONS; *OIL; *PERFORMANCE EVALUATION; *PETROLEUM; *SHIPS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 309-315P.

ABSTRACT: A STUDY OF THE EFFECTIVENESS OF LARGE-SCALE TREATMENT OF BALLAST WATER WAS CONDUCTED AT THE TERMINAL FACILITY OF THE TRANS-ALASKA PIPELINE IN PORT VALDEZ. THE TREATMENT PLANT PERFORMANCE EVALUATION WAS CONDUCTED DURING THREE SEPARATE PERIODS: SUMMER 1978, WINTER 1979, AND SUMMER 1979. IT WAS FOUND THAT THE PLANT IS GENERALLY EFFECTIVE IN REDUCING THE PETROLEUM CONTENT OF THE BALLAST WATER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V54 N3

IRIS ACCESSION NUMBER: EW007632

PUBLICATION DATE: FEB 80

TITLE: ILLINOIS WATER SUPPLY OPERATOR TRAINING PLAN.

PERSONAL AUTHOR: ANDERSON, DONALD M.

DESCRIPTOR: *DRINKING WATER; *EDUCATIONAL PROGRAMS; *EVALUATION; *ILLINOIS; *INSTRUCTION; *NEEDS ASSESSMENT; *PROGRAM DEVELOPMENT; *PLANNING; *POST SECONDARY EDUCATION; POTABLE WATER; *STATE PROGRAMS; *TRAINING; *WATER SUPPLY

DESCRIPTIVE NOTE: 202P.

ABSTRACT: DETAILED ARE AN EVALUATION OF THE CURRENT ILLINOIS TRAINING PROGRAM FOR PUBLIC WATER SUPPLY OPERATOR TRAINING AND THE PROPOSED COMPREHENSIVE TRAINING PLAN DEVELOPED AS A RESULT OF THAT EVALUATION. THE PRINCIPAL THRUST OF THE PLAN WAS DIRECTED TOWARD EVALUATING AND IDENTIFYING TRAINING DELIVERY METHODS TAILORED TO REACH THE SMALL SUPPLY OPERATOR AT THEIR JOB SITES. THE PLAN WAS

DESIGNED FOR IMPLEMENTATION OVER A FOUR YEAR PERIOD. FUNDING PRIORITIES AND ESTIMATED COSTS ARE PROVIDED.

AVAILABILITY: SOUTHERN ILLINOIS UNIVERSITY, ENVIRONMENTAL RESOURCES TRAINING CENTER, EDWARDSVILLE, IL 62026

IRIS ACCESSION NUMBER: EW007637

PUBLICATION DATE: MAY 78

TITLE: IOWA STATEWIDE WATER AND WASTEWATER OPERATOR TRAINING PROGRAM - COURSE CATALOG.

DESCRIPTOR: *COURSE DESCRIPTIONS; *CURRICULUM; *IOWA; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; *STATE PROGRAMS; *TRAINING; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL; WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 73P.

ABSTRACT: LISTED AND DESCRIBED ARE THE COURSES AVAILABLE TO OPERATORS AND MANAGEMENT STAFF IN THE IOWA STATEWIDE TRAINING PROGRAM. THE FIVE SECTIONS OF THE CATALOG CORRESPOND TO THE CATEGORIES OF THE STATE TRAINING PROGRAM: GENERAL, UNIT PROCESSES, SUPPORT SYSTEMS, SUPERVISORY/MANAGEMENT, AND LABORATORY. COURSE OBJECTIVES, PREREQUISITES, AND CONTENT ARE SPECIFIED. THE CURRICULUM IS IN THE FORM OF INSTRUCTIONAL MODULE PACKAGES (MODULES), BUT THE CURRICULUM IS NOT INTENDED FOR USE AS SELF-INSTRUCTIONAL MATERIAL. NOTE: THIS IS A 1978 CATALOG BUT PROVIDES AN EXAMPLE OF A STATE PROGRAM.

AVAILABILITY: OPERATOR CERTIFICATION BOARD, DEPARTMENT OF ENVIRONMENTAL QUALITY, HENRY A. WALLACE BUILDING, 900 EAST GRAND, DES MOINES, IA 50319

IRIS ACCESSION NUMBER: EW007638

PUBLICATION DATE: FEB 77

TITLE: NONPOINT SOURCE CONTROL GUIDANCE HYDROLOGIC MODIFICATIONS.

DESCRIPTOR: *BEST MANAGEMENT PRACTICES; DAMS; *FEDERAL PROGRAMS; GROUNDWATER; *GUIDELINES; *HYDROLOGY; *MANAGEMENT; *NONPOINT POLLUTION; *PLANNING; REGIONAL PLANNING; *STATE PROGRAMS; STREAM CHANNELS; *WATER POLLUTION CONTROL; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 110P.

ABSTRACT: THIS HYDROLOGIC MODIFICATIONS NONPOINT SOURCE POLLUTION CONTROL GUIDANCE DOCUMENT IS ONE OF A SERIES DESIGNED TO PROVIDE STATE AND AREAWIDE 208 AGENCIES, THE FEDERAL AGENCIES, AND OTHER CONCERNED GROUPS AND INDIVIDUALS WITH INFORMATION TO ASSIST IN CARRYING OUT WATER QUALITY PLANNING AND IMPLEMENTATION RESPONSIBILITIES. THE INFORMATION PROVIDED IS PRINCIPALLY TECHNICAL IN NATURE AND PRESENTED IN FOUR CHAPTERS. INCLUDED IS INFORMATION ON THE

IDENTIFICATION AND ASSESSMENT OF EXISTING HYDROLOGIC MODIFICATION NONPOINT PROBLEMS; ANALYSIS AND PROCEDURES NEEDED FOR THE SELECTION OF CONTROLS; DESCRIPTIONS OF INDIVIDUALS AND SYSTEMS OF BEST MANAGEMENT PRACTICES; IMPORTANT CONSIDERATIONS FOR PREDICTING POTENTIAL POLLUTION PROBLEMS FROM FUTURE HYDROLOGIC MODIFICATIONS; AND A SUGGESTED FORMAT FOR THE FINAL PLAN.

AVAILABILITY: ENVIRONMENTAL PROTECTION AGNENCY, WATER PLANNING DIVISION, 401 "M" STREET, S.W., WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW007639

PUBLICATION DATE: JUN 76

TITLE: MODELS OF A FOREST ECOSYSTEM.

PERSONAL AUTHOR: RYAN, J. A.; MORISON, I. C.

DESCRIPTOR: *COMPUTER APPLICATIONS; *DECISION MAKING; *ECOLOGY; *ENVIRONMENTAL INFLUENCES; *ENVIRONMENTAL RESEARCH; *FORESTRY; *LAND USE; *MANAGEMENT; *MODELS; *NATURAL RESOURCES; *PLANNING; *RESEARCH REPORTS; *SIMULATION; *SYSTEMS ANALYSIS; *WATERSHEDS

DESCRIPTIVE NOTE: 46P.

ABSTRACT: DESCRIBED IS RESEARCH THAT ATTEMPTED TO FORMULATE A COMPUTERIZED PLANNING SYSTEM CAPABLE OF ASSISTING WILDLAND MANAGERS IN THE EVALUATION OF THE PHYSICAL, ECONOMIC, AND ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE LAND-USE DECISIONS AND MANAGEMENT ACTIVITIES. THE METHODOLOGY IS EMBODIED WITHIN A SET OF COMPUTER SIMULATION MODELS THAT ARE DIRECTLY LINKED TO A GEOGRAPHIC DATA BASE. THE MODELS WERE APPLIED TO TWO WATERSHEDS WITHIN THE SNOHOMISH RIVER BASIN IN THE STATE OF WASHINGTON. HYDROLOGIC, METEOROLOGIC, AND ATMOSPHERIC MODELS WERE DEVELOPED.

AVAILABILITY: INSTITUTE OF FOREST PRODUCTS, COLLEGE OF FOREST RESOURCES, UNIVERSITY OF WASHINGTON, SEATTLE, WA 98195

IRIS ACCESSION NUMBER: EW007642

PUBLICATION DATE: 81

TITLE: STOCKHOLM COMMEMORATION PART A-A SELECTION OF OFFICIAL AND DEPARTMENTAL PUBLICATIONS RELATING TO THE ENVIRONMENT 1971-1981.

PERSONAL AUTHOR: LAMBERT, CLAIRE

DESCRIPTOR: AIR POLLUTION CONTROL; *ANNOTATED BIBLIOGRAPHIES; *DEVELOPED NATIONS; *ENGLAND; *ENVIRONMENT; GLOBAL APPROACH; *GOVERNMENT PUBLICATIONS; HOUSING; *LAND USE; LEGISLATION; *POLLUTION; QUALITY OF LIFE; *RESEARCH REPORTS; *URBAN ENVIRONMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 34P

ABSTRACT: PRESENTED ARE 140 BIBLIOGRAPHIC CITATIONS REPRESENTING A SELECTION OF THE OFFICIAL AND DEPARTMENTAL PUBLICATIONS RELATING TO THE ENVIRONMENT PRODUCED BY THE DEPARTMENTS OF THE ENVIRONMENT AND TRANSPORT (ENGLAND) FOR THE TEN YEAR PERIOD, 1971-1981. THE LITERATURE IN THE LIST IS ARRANGED CHRONOLOGICALLY AND INCLUDES ANNUAL REPORTS AND LEGISLATION.

AVAILABILITY: DEPARTMENT OF THE ENVIRONMENT AND DEPARTMENT OF TRANSPORT COMMON SERVICES, THE LIBRARY, 1 MARSHAM STREET, LONDON SWIP 3EB, ENGLAND

IRIS ACCESSION NUMBER: EW007644

PUBLICATION DATE: DEC 77

TITLE: AN INTRODUCTION TO THE TECHNOLOGY OF SUBSURFACE WASTEWATER INJECTION.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *CONSTRUCTION; *DESIGN; DESIGN CRITERIA; GROUNDWATER; *GUIDELINES; INDUSTRY; *INJECTION WELLS; *MAINTENANCE; MONITORING; *TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; *WELLS

DESCRIPTIVE NOTE: 355P.

ABSTRACT: DESIGNED TO SERVE AS A GUIDE TO AND A STANDARD FOR INJECTION WELL CONSTRUCTION AND MAINTENANCE, THIS DOCUMENT PROVIDES THE MINIMUM CRITERIA NECESSARY TO PROTECT UNDERGROUND WATER FROM DEGRADATION AND PRESENTS INDUSTRY WITH THE MEANS TO EVALUATE INJECTION AS AN ALTERNATIVE TO OTHER MEANS OF WASTE DISPOSAL. TOPICS DISCUSSED INCLUDE THE GEOLOGIC AND HYDROLOGIC ENVIRONMENT, CRITERIA FOR INJECTION WELL SITE EVALUATION, WASTEWATER CHARACTERISTICS, PRETREATMENT AND SURFACE FACILITY DESIGN, INJECTION WELL DESIGN AND CONSTRUCTION, START-UP OPERATIONS, MONITORING, AND ABANDONMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007648

PUBLICATION DATE: 82

TITLE: INFORMATION RESOURCES IN TOXICOLOGY.

PERSONAL AUTHOR: WEXLER, PHILIP

DESCRIPTOR: *AUDIOVISUAL AIDS; *BIBLIOGRAPHIES; BOOKS; DATA BASES; *DIRECTORIES; GRADUATE PROGRAMS; *GUIDES; HIGHER EDUCATION; *INFORMATION SOURCES; LEGISLATION; ORGANIZATIONS; PERIODICALS; *PUBLICATIONS; *REFERENCE MATERIALS; *RESEARCH REPORTS; *RESOURCE MATERIALS; *TOXICOLOGY

DESCRIPTIVE NOTE: 333P. PRICE: $45.00

ABSTRACT: SURVEYED IN THIS ONE VOLUME ARE STANDARD AND LESSER KNOWN BOOKS, JOURNALS, AUDIOVISUALS, DATABASES,

ORGANIZATIONS, AND LEGISLATION IN THE FIELD OF TOXICOLOGY. AREAS INCLUDED ARE ANALYTICAL AND CLINICAL TOXICOLOGY, TARGET SYSTEMS, BIOTOXINS, CARCINOGENESIS, DRUGS , FOOD, METALS, PESTICIDES, AND COSMETICS. INCLUDED ALSO ARE THE SOCIETY OF TOXICOLOGY'S ROSTER OF UNIVERSITIES OFFERING GRADUATE PROGRAMS IN TOXICOLOGY, THE NATIONAL CLEARING HOUSE OF POISON CONTROL CENTER'S DIRECTORY, CHAPTERS ON GOVERNMENTAL, NON-GOVERNMENTAL, AND INTERNATIONAL ORGANIZATIONS, AND AN APPENDIX LISTING ADDITIONAL RESOURCES.

AVAILABILITY: ELSEVIER SCIENCE PUBLISHING COMPANY, INC., 52 VANDERBILT AVENUE, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW007649

PUBLICATION DATE: FEB 82

TITLE: THE MARKET FOR OPERATION AND MAINTENANCE SERVICES IN MUNICIPAL AND INDUSTRIAL WATER AND WASTEWATER TREATMENT PLANTS IN THE U. S.

DESCRIPTOR: *BUSINESS; *CONTRACTED SERVICES; *FACILITIES; *FORECASTING; *INDUSTRY; *MAINTENANCE; *MANAGEMENT; *MARKET ANALYSIS; *MUNICIPALITIES; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *SURVEYS; *UTILITIES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $875.00

ABSTRACT: PROVIDED ARE COMPREHENSIVE ANALYSES OF THE MUNICIPAL, INDUSTRIAL, AND PRIVATE SECTOR WATER AND WASTEWATER TREATMENT MARKETS. STATISTICS ON THE CONSTRUCTION OF NEW PLANTS AND THE PROBLEMS AND CHARACTERISTICS OF EXISTING PLANTS ARE PROVIDED. A DETAILED OVERVIEW OF EACH INDUSTRIAL MARKET, INCLUDING STATISTICAL PROFILES, IS PRESENTED. THE NEEDS AND GROWTH POTENTIAL OF PRIVATE MARKETS ARE ANALYZED. THE MARKETING STRATEGIES, VISIBILITY, AND REGIONS OF INFLUENCE OF KEY COMPETITORS IN THE O & M SERVICES BUSINESS ARE COMPARED. PROJECTIONS ARE GIVEN FOR THE POTENTIAL MARKET, IN DOLLARS, FOR CONTRACT O & M SERVICES AND GROWTH EXPECTED. GEOGRAPHICALLY SEGMENTED DATA IS ALSO PRESENTED.

AVAILABILITY: WILLIAM T. LORENZ & CO., MANAGEMENT CONSULTANTS, 311 COMMONWEALTH AVENUE, BOSTON, MA 02115

IRIS ACCESSION NUMBER: EW007650

PUBLICATION DATE: JUL 81

TITLE: ENVIRONMENTAL IMPACT AND HEALTH EFFECTS OF WASTEWATER CHLORINATION DOCUMENT NO. 81/27.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENT; *CHLORINATION; *DISINFECTION; *ENVIRONMENTAL IMPACT; FISH; HEALTH; *LITERATURE REVIEWS; *OPERATIONS (WASTEWATER); ORGANICS; *RESEARCH REVIEWS; *TOXICITY; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 63P.

ABSTRACT: THIS IS A CRITICAL REVIEW OF THE LITERATURE RELATED TO THE ENVIRONMENTAL IMPACT AND HEALTH EFFECTS OF CHLORINATING WASTEWATER EFFLUENTS. INCLUDED IN THIS REVIEW ARE STUDIES WHICH HAVE BEEN CONDUCTED UNDER A VARIETY OF ENVIRONMENTAL CONDITIONS IN AN ATTEMPT TO QUANTIFY THE TOXICITY OF CHLORINE TO AQUATIC ORGANISMS. EXPERIMENTS CONDUCTED IN RELATIVELY CLEAN WATERS AND IN SEWAGE EFFLUENTS INVOLVING BOTH INTERMITTENT AND CONTINUOUS CHLORINE APPLICATIONS ARE INCLUDED. TOXIC CONCENTRATIONS OF CHLORINE RESIDUALS TO AQUATIC BIOTA ARE GIVEN IN TERMS OF DURATION OF EXPOSURE, TEMPERATURE, AND CHEMICAL CHARACTERISTICS OF THE WATER. ALSO PROVIDED ARE AN EVALUATION OF THE TYPES OF ORGANIC COMPOUNDS FORMED AT A WASTEWATER TREATMENT FACILITY, THE TOXICITY OF THESE COMPOUNDS TO AQUATIC LIFE, AND THEIR IMPACT ON HUMAN HEALTH.

AVAILABILITY: STATE OF ILLINOIS, INSTITUTE OF NATURAL RESOURCES, 309 WEST WASHINGTON STREET, CHICAGO, IL 60606

IRIS ACCESSION NUMBER: EW007651

PUBLICATION DATE: 81

TITLE: PROTECTIVE INTERIOR COATINGS FOR VALVES AND HYDRANTS.

DESCRIPTOR: CORROSION; *CORROSION CONTROL; *FIRE HYDRANTS; *HYDRANTS; *INTERIOR COATINGS; *MAINTENANCE; *MUNICIPALITIES; *OPERATIONS (WATER); *STANDARDS; *UTILITIES; *VALVES; *WATER SUPPLY

DESCRIPTIVE NOTE: PRICE: $2.25 MEMBERS, $4.50 NON-MEMBERS.

ABSTRACT: SPECIFIED ARE THE 1981 AMERICAN WATER WORKS ASSOCIATION STANDARDS FOR PROTECTIVE INTERIOR COATINGS FOR VALVES AND HYDRANTS. TYPES OF MATERIALS, COATING, TESTING, AND THE BASIS FOR REJECTION OF A COATED ASSEMBLY ARE PROVIDED.

AVAILABILITY: AWWA DATA PROCESSING DEPT., 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007652

PUBLICATION DATE: 81

TITLE: ENVIRONMENTAL POLLUTION.

PERSONAL AUTHOR: DIX, H. M.

DESCRIPTOR: *AIR POLLUTION CONTROL; *ECOLOGY; *ENVIRONMENT; *ENVIRONMENTAL INFLUENCES; FEDERAL GOVERNMENT; *FEDERAL LEGISLATION; *GOVERNMENT ROLE; *INDUSTRY; LAND USE; *NOISE; *POLLUTION; *POLLUTION CONTROL; *WASTE DISPOSAL; WASTES; *WATER POLLUTION CONTROL; WATER RESOURCES

DESCRIPTIVE NOTE: 286P. PRICE: $44.50

ABSTRACT: PRESENTED IS A COMPREHENSIVE STUDY OF ALL ASPECTS OF POLLUTION, TREATING EACH AS AN INTEGRATED OCCURRENCE

WITHIN THE ECOSYSTEMS OF THE ENVIRONMENT. METHODS AND IMPLEMENTATION OF POLLUTION CONTROL ARE ASSESSED. SUGGESTIONS ARE MADE FOR REDUCING POLLUTION AND PROVIDING MORE EFFECTIVE CONTROLS. EMPHASIZED IS THE NEED FOR GOVERNMENT AND INDUSTRY TO PROVIDE THE NECESSARY RESOURCES IN THE FUTURE. SECTIONS INCLUDE: GENERAL, ATMOSPHERE, LAND, WATER, NOISE, POLLUTION CONTROL AND LEGISLATION, AND A SUMMARY.

AVAILABILITY: JOHN WILEY & SONS, ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW007653

PUBLICATION DATE: 81

TITLE: PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY, THIRD REVISED EDITION, VOLUME 2A: TOXICOLOGY.

PERSONAL AUTHOR: CLAYTON, GEORGE D.; CLAYTON, FLORENCE E.

DESCRIPTOR: HAZARDOUS MATERIALS; *INDUSTRIAL HYGIENE; INDUSTRY; *LITERATURE REVIEWS; *METALS; *ORGANIC COMPOUNDS; *RESEARCH; *TOXICOLOGY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 1,420P. PRICE: $100.00

ABSTRACT: ORIGINALLY COMPILED IN 1948, THIS EDITION IS THE FIRST INSTALLMENT OF A THREE-PART EXPANSION OF THE PREVIOUS SINGLE TOXICOLOGY VOLUME. PRESENTED IS A COMPLETELY UPDATED REVIEW OF WORLD LITERATURE AND RESEARCH ON THE SUBJECTS OF INDUSTRIAL HYGIENE AND TOXICOLOGY. THE VOLUME CONTAINS A HISTORICAL SUMMARY OF TOXICOLOGY, FOLLOWED BY A DISCUSSION OF 40 METALS; ORGANIC SULFUR COMPOUNDS; PHOSPHOROUS, SELENIUM, AND TELLURIUM; EPOXIES; ESTERS, PHENOLS, AND PHENOLIC COMPOUNDS; ALDEHYDES AND ACETALS; AND THE HETEROCYCLIC AND MISCELLANEOUS NITRO COMPOUNDS.

AVAILABILITY: JOHN WILEY AND SONS, INC., 605 THIRD AVENUE, NEW YORK, NY 10158

IRIS ACCESSION NUMBER: EW007654

PUBLICATION DATE: 80

TITLE: WASTEWATER AEROSOLS AND DISEASE.

PERSONAL AUTHOR: PAHREN, H.; JAKUBOWSKI, W.

DESCRIPTOR: *AEROSOLS; *CONFERENCE PROCEEDINGS; DISEASE; *DISEASE CONTROL; EPIDEMINOLOGY; HEALTH; *MICROBIOLOGY; *OPERATIONS (WASTEWATER); PATHOGENS; *PUBLIC HEALTH; *RESEARCH; *SYMPOSIA; *WASTEWATER TREATMENT; WATER QUALITY; WORLD PROBLEMS

DESCRIPTIVE NOTE: 367P.

ABSTRACT: PRESENTED ARE 22 INVITED PAPERS AND THE ASSOCIATED DISCUSSIONS FROM A 1979 ASEPA SPONSORED SYMPOSIA ON THE CURRENT STATE-OF KNOWLEDGE ON HUMAN HEALTH ASPECTS OF

EXPOSURE TO MICROBIOLOGICAL AGENTS EMITTED AS AEROSOLS FROM WASTEWATER TREATMENT PLANTS. TOPICS INCLUDE THE NATURE OF CONTAMINANTS, HEALTH ASPECTS, EPIDEMIOLOGICAL STUDIES AND AEROSOL SUPPRESSION.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW007655

PUBLICATION DATE: 81

TITLE: WATER QUALITY MEASUREMENT.

PERSONAL AUTHOR: MARK, HARRY B., JR., MATTSON, JAMES S.

DESCRIPTOR: *ANALYTICAL CHEMISTRY; *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; *CHEMISTRY; ECOLOGY; HEALTH; *INSTRUCTIONAL MATERIALS; *INSTRUMENTATION; *MEASUREMENT; *POST SECONDARY EDUCATION; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 485P. PRICE: $57.75

ABSTRACT: EXAMINED ARE DEVELOPMENTS IN ANALYTICAL INSTRUMENTATION AND CHEMISTRY IN ORDER TO FURNISH CHEMISTS WITH THE METHODS NEEDED TO CLEAN-UP WATER; REGULATE WATER QUALITY; DETERMINE THE HEALTH HAZARDS OF TRACE CONSTITUENTS; AND CORRELATE ECOLOGICAL CHANGES CAUSED BY TRACE SUBSTANCES.

AVAILABILITY: MARCEL DEKKER, INC., 270 MADISON AVENUE, NEW YORK, NY 10016

IRIS ACCESSION NUMBER: EW007656

PUBLICATION DATE: 81

TITLE: OZONE TREATMENT OF WASTEWATER.

PERSONAL AUTHOR: RICE, R. C.; BROWNING, M. E.

DESCRIPTOR: BIOLOGICAL ACTIVATED CARBON; *DISINFECTION; EQUIPMENT; *FACILITIES; *INDUSTRY; MUNICIPALITIES; *OPERATIONS (WASTEWATER); ORGANIC COMPOUNDS; *OZONE; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGICAL ADVANCEMENT; TECHNOLOGY; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 371P. PRICE: 32.00 HARD COVER.

ABSTRACT: PROVIDED IS A REVIEW OF THE STATE-OF-THE-ART TECHNOLOGY IN OZONE WASTEWATER TREATMENT. REVIEWED ARE SUCH TOPICS AS OXIDATION PROCESSES; PRINCIPLES OF OZONE TECHNOLOGY; INDUSTRIAL WATER/WASTEWATER APPLICATIONS OF OZONE; ORGANIC OXIDATION PRODUCTS; AND, BIOLOGICAL ACTIVATED CARBON.

AVAILABILITY: NOYES DATA CORPORATION, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW007657

TITLE: PUMP OPERATIONS TRAINING PROGRAM - CENTRIFUGAL PUMPS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CENTRIFUGAL PUMPS; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PUMPS; *TRAINING; UTILITIES; *VIDEOTAPES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: INCLUDES - 1 HOUR VIDEOTAPE, 25 STUDENT WORKBOOKS, 2 INSTRUCTOR'S DISCUSSION GUIDES.

ABSTRACT: USING VIDEOTAPES, THIS TRAINING PROGRAM DETAILS THE OPERATION AND MAINTENANCE OF CENTRIFUGAL PUMPS. TOPICS INCLUDE THE BASICS OF PUMP OPERATION; PREOPERATIONAL CHECKS; VALVE LINEUP; START-UP AND LOADING; INTERPRETING PUMP OPERATING CURVES, SYSTEM CHARACTERISTICS CURVES, ABNORMAL OPERATIONS, AND SHUTDOWN.

AVAILABILITY: INDUSTRIAL TRAINING CORPORATION, 14616 SOUTHLAWN LANE, BOX 6009, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW007659

PUBLICATION DATE: 81

TITLE: DICTIONARY OF DANGEROUS POLLUTANTS, ECOLOGY AND ENVIRONMENT.

PERSONAL AUTHOR: TVER, DAVID F.

DESCRIPTOR: *CHEMICALS; *DICTIONARIES; *ECOLOGY; *ENVIRONMENT; ENVIRONMENTAL INFLUENCES; FUELS; *HAZARDOUS MATERIALS; *INDUSTRY; *ORGANIC COMPOUNDS; PESTICIDES; *POLLUTION; *REFERENCE MATERIALS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 360P.

ABSTRACT: PRESENTED IS INFORMATION ON CAUSES OF DANGEROUS POLLUTION, MANUFACTURING METHODS THAT CREATE POLLUTION; AND THE PRODUCTION, USE, AND ULTIMATE EFFECTS OF CHEMICAL POLLUTANTS. DISCUSSED IN DETAIL ARE SYNTHETIC AND ORGANIC CHEMICALS, PESTICIDES, AND ORGANIC FUELS.

AVAILABILITY: INDUSTRIAL PRESS INC., 200 MADISON AVENUE, NEW YORK, NY 10157

IRIS ACCESSION NUMBER: EW007661

PUBLICATION DATE: 81

TITLE: PHOSPHORUS IN SEWAGE SLUDGE AND ANIMAL WASTE SLURRIES.

PERSONAL AUTHOR: HUCKER, T. W. G.; CATROUX, G.

DESCRIPTOR: *AGRICULTURE; *ANIMAL WASTES; *CONFERENCE PROCEEDING; *PHOSPHOROUS; *RESEARCH; *SEWAGE; *SEMINARS; *SEWAGE SLUDGE; *WASTE DISPOSAL; *WASTES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 444P. PRICE: $39.50

ABSTRACT: PRESENTED ARE THE PROCEEDINGS OF A 1980 SEMINAR HELD IN THE NETHERLANDS ON THE PRESENCE OF PHOSPHOROUS IN SEWAGE SLUDGE AND ANIMAL WASTE SLURRIES.

AVAILABILITY: KLUWER BOSTON, INC., 190 OLD DERBY STREET, HINGHAM, MA 02043

IRIS ACCESSION NUMBER: EW007662

PUBLICATION DATE: 81

TITLE: INDUSTRIAL EFFLUENT TREATMENT, VOLUME 1, WATER AND SOLID WASTES.

PERSONAL AUTHOR: WALTERS, J. K.; WINT, A.

DESCRIPTOR: *DESIGN; *ENGINEERING; *ENGLAND; ENVIRONMENTAL INFLUENCES; *EFFLUENTS; INCINERATION; *INDUSTRIAL WASTES; INDUSTRY; LEGISLATION; *OPERATIONS (WASTEWATER); *PROCESS CONTROL; *SEWERS; TOXIC SUBSTANCES; *WASTE DISPOSAL; WASTES; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 351P. PRICE: $44.00

ABSTRACT: DISCUSSED ARE POLLUTION CONTROL STRATEGIES AND THE LEGAL CONSTRAINTS WITHIN WHICH THE PROCESS CONTROL ENGINEER MUST WORK. DISCUSSED ARE THE APPROACHES TAKEN BY AUTHORITIES IN CONTROLLING DISCHARGES TO SEWERS AND WATERCOURSES; THE ROLE OF DISSOLVED OXYGEN IN A WATERCOURSE; THE EFFECT OF VARIOUS POLLUTANTS ON AQUATIC LIFE; PHYSICAL, CHEMICAL, AND BIOLOGICAL PROCESSES FOR THE TREATMENT OF EFFLUENTS; DISPOSAL OF TOXIC MATERIALS; AND, THE INCINERATION AND PYROLYSIS OF WASTES.

AVAILABILITY: APPLIED SCIENCE PUBLISHERS LTD., 22 RIPPLESIDE COMMERCIAL ESTATE, RIPPLE ROAD, BARKING ESSEX IG11 0SA ENGLAND

IRIS ACCESSION NUMBER: EW007664

TITLE: TRICKLING FILTER MANUAL.

DESCRIPTOR: *FILTRATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TRAINING; *TRICKLING FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $12.00 MEMBERS, $18.00 NON-MEMBERS, PLUS POSTAGE

ABSTRACT: PRESENTED IS AN OPERATOR'S MANUAL ON THE OPERATION OF TRICKLING FILTERS. COVERED IN CHAPTERS ARE SUCH TOPICS AS THE BIOLOGY OF A TRICKLING FILTER; HISTORY, BACKGROUND, AND THEORY; TRICKLING FILTER CONSTRUCTION, PERFORMANCE, OPERATION AND MAINTENANCE, AND TROUBLESHOOTING;

DISINFECTION; ANAEROBIC DIGESTION; AND SLUDGE HANDLING.

AVAILABILITY: NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION, 158 SOUTH NAPOLEON STREET, P. O. BOX 346, VALPARAISO, IN 46383

IRIS ACCESSION NUMBER: EW007665

TITLE: ELECTRICITY FOR WATER AND WASTEWATER PLANT OPERATORS.

DESCRIPTOR: *APPLIED SCIENCE; *AUDIOVISUAL AIDS; *ELECTRICITY; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *TRAINING; *TRAINING PROGRAMS; UTILITIES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $150.00 PLUS POSTAGE/HANDLING. INSTRUCTOR SET CONTAINS LESSON PLANS, SLIDES, OVERHEAD TRANSPARENCY MASTERS, AND A STUDENT MANUAL.

ABSTRACT: PRESENTED IS A COURSE DESIGNED TO GIVE OPERATORS AN UNDERSTANDING OF THE ELECTRICAL EQUIPMENT IN WATER AND WASTEWATER TREATMENT PLANTS. DIVIDED INTO SIX UNITS, TOPICS COVERED INCLUDE: ELECTRICAL FUNDAMENTALS; THE USE OF ELECTRIC METERS; COMPONENTS OF ELECTRIC PANELS; ELECTRIC MOTORS; MOTOR CONTROL PANELS; AND, TROUBLESHOOTING.

AVAILABILITY: NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION, 158 SOUTH NAPOLEON STREET, P.O. BOX 346, VALPARAISO, IN 46383

IRIS ACCESSION NUMBER: EW007666

TITLE: MECHANICAL MAINTENANCE FOR WATER AND WASTEWATER OPERATORS.

PERSONAL AUTHOR: ANDERSON, DON; AND OTHERS

DESCRIPTOR: *EQUIPMENT; FACILITIES; HYDRAULICS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PUMPS; *TRAINING; UTILITIES; *WASTEWATER TREATMENT; *WATER TREATMENT; WATER SUPPLY

DESCRIPTIVE NOTE: PRICE: $175.00 PLUS POSTAGE. INSTRUCTOR SET CONTAINS LESSON PLANS, SLIDES, OVERHEAD TRANSPARENCY MASTERS, AND A STUDENT MANUAL.

ABSTRACT: PRESENTED IS AN EIGHT UNIT COURSE DESIGNED TO PROVIDE OPERATORS WITH A BETTER UNDERSTANDING OF THE MECHANICAL MAINTENANCE NEEDED IN WATER AND WASTEWATER TREATMENT PLANTS. COVERED IN THE COURSE ARE BASIC HAND TOOLS; CENTRIFUGAL AND POSITIVE DISPLACEMENT PUMPS; BASIC HYDRAULICS; PUMPING SYSTEMS; GEAR REDUCERS; BLUEPRINT READING; AND, INSPECTION AND MAINTENANCE.

AVAILABILITY: NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION, 158 SOUTH NAPOLEON STREET, P. O. BOX 346, VALPARAISO, IN 46383

IRIS ACCESSION NUMBER: EW007667

PUBLICATION DATE: 82

TITLE: BLUEPRINT FOR CLEAN WATER.

PERSONAL AUTHOR: SHEIMAN, DEBORAH A.

DESCRIPTOR: *CITIZEN PARTICIPATION; *CLEAN WATER ACT; *ECONOMICS; *FEDERAL PROGRAMS; GROUNDWATER; INDUSTRY; *LEGISLATION; *PLANNING; *POLICY FORMATION; *PUBLIC PARTICIPATION; *SOCIAL ACTION; STANDARDS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 24P.

ABSTRACT: PRESENTED IS A REVIEW OF FEDERAL WATER LEGISLATIONS OF THE 1970'S AND A PLAN TO INCREASE PARTICIPATION IN THE PUBLIC POLICY DEBATE OVER THE SHAPE OF FEDERAL WATER POLLUTION CONTROL PROGRAMS FOR THE EIGHTIES. DISCUSSED ARE THE DIFFERENT TYPES OF WATER POLLUTANTS AND THEIR IMPACT ON BIOLOGICAL SYSTEMS, THE ECONOMICS OF POLLUTION AND POLLUTION CONTROL, AND THE SUCCESSES AND FAILURES OF THE CLEAN WATER ACT.

AVAILABILITY: LEAGUE OF WOMEN VOTERS EDUCATION FUND, 1730 'M' STREET, N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW007670

PUBLICATION DATE: APR 82

TITLE: BUILDING WATER AND SANITATION PROJECTS IN RURAL GUATEMALA.

PERSONAL AUTHOR: KARP, ANDREW W.; COX, STEPHEN B.

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *CASE STUDIES; *CONSTRUCTION; *FOREIGN COUNTRIES; *GUATEMALA; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; *RURAL AREAS; *SANITATION; *WASTE DISPOSAL; *WATER PROJECTS; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 163-169P.

ABSTRACT: IN THE HIGHLANDS OF GUATEMALA, WHERE 80 PERCENT OF THE POPULATION HAS NEITHER PUBLIC WATER SUPPLIES NOR RUDIMENTARY PROVISIONS FOR SANITATION, A NONPROFIT ORGANIZATION HAS SUCCESSFULLY INITIATED PROJECTS THAT ADDRESS BOTH HEALTH-THREATENING DEFICIENCIES SIMULTANEOUSLY. THE TECHNOLOGY USED IS APPROPRIATELY SIMPLIFIED, LOCAL PARTICIPATION IN PLANNING AND CONSTRUCTION IS REQUIRED, PROJECTS ARE SELF-FINANCED, AND LOCAL WATER COMMITTEES ARE TRAINED TO PERPETUATE MAINTENANCE AND OPERATION OF THE SYSTEM ONCE IT IS BUILT. THE CONCEPT COULD BE EMULATED IN MANY RURAL AREAS OF DEVELOPING COUNTRIES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N4

IRIS ACCESSION NUMBER: EW007671

PUBLICATION DATE: APR 82

TITLE: COSTS FOR SUPPLYING ALTERNATIVE COMMUNITY WATER AND SANITATION SYSTEMS IN BRAZIL.

PERSONAL AUTHOR: DEMKE, KEITH A.; LAURIA, DONALD T.

DESCRIPTOR: *BRAZIL; *CASE STUDIES; *COSTS; *ECONOMIC FACTORS; *FACILITIES; *FOREIGN COUNTRIES; *MANAGEMENT; *OPERATIONS (WATER); *SANITATION; *WASTE DISPOSAL; *WATER PROJECTS; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 171-177P.

ABSTRACT: FIVE LEVELS OF SERVICE FOR WATER AND SANITATION FACILITIES THAT COULD BE PROVIDED IN A BRAZILIAN COMMUNITY WERE DESIGNED AND COST-ANALYZED WITH COMPUTER TECHNIQUES TO PROJECT OPTIMUM SYSTEMS FOR DEVELOPING COUNTRIES. WHEN COST IS AN IMPORTANT CONSIDERATION, A SYSTEM USING YARD TAPS AND ON-SITE WASTE DISPOSAL WAS FOUND TO BE MOST APPROPRIATE. THIS LEVEL OF SERVICE WOULD PROVIDE SUBSTANTIAL HEALTH AND CONVENIENCE BENEFITS AT A PRESENT COST OF $42 (US) FOR A PROJECTED 20-YEAR DESIGN POPULATION. THE COST OF PROVIDING BOTH WATER AND SANITATION FACILITIES ON ALL LEVELS OF SERVICE WAS FOUND TO BE TWICE THAT OF PROVIDING WATER ALONE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N4

IRIS ACCESSION NUMBER: EW007672

PUBLICATION DATE: APR 82

TITLE: DEVELOPING AND APPLYING INTERNATIONAL WATER QUALITY GUIDELINES.

PERSONAL AUTHOR: WITT, VICENTE M.

DESCRIPTOR: *DRINKING WATER; *GUIDELINES; *INTERNATIONAL PROGRAMS; *PUBLIC HEALTH; *SANITATION; *STANDARDS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 178-181P.

ABSTRACT: AN ADVISORY GROUP TO THE WORLD HEALTH ORGANIZATION WAS NAMED IN THE LATE 1970S TO SET GUIDELINES FOR REVISION OF THE "INTERNATIONAL STANDARDS FOR DRINKING WATER" IN ANTICIPATION OF THE INTERNATIONAL DRINKING WATER SUPPLY AND SANITATION DECADE THAT WILL END IN 1990. IT WAS DECIDED TO ASSEMBLE A THREE-VOLUME MANUAL ENTITLED "GUIDELINES FOR DRINKING WATER QUALITY" IN ADDITION TO REVISING THE "INTERNATIONAL STANDARDS FOR DRINKING WATER". EXPECTED TO BE PUBLISHED IN MID-1982, THE "GUIDELINES" COMPRISE THREE SECTIONS. THE FIRST CONTAINS A SUMMARY OF THE RATIONALE USED FOR ESTABLISHING RECOMMENDED CONTAMINANT LIMITS, HOW TO ATTAIN RECOMMENDED LIMITS, AND ACTION THAT CAN BE TAKEN TO MEET WATER QUALITY RECOMMENDATIONS. THE SECOND SECTION ADDRESSES CRITERIA FOR APPLYING THE RECOMMENDED WATER QUALITY STANDARDS. THE THIRD SECTION CONTAINS SPECIFIC GUIDELINES. MANY COUNTRIES ARE EXPECTED TO ADOPT THE RECOMMENDATIONS OF THE "GUIDELINES" IN WHOLE OR IN PART FOR PUBLIC WATER STANDARDS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N4

IRIS ACCESSION NUMBER: EW007673

PUBLICATION DATE: APR 82

TITLE: SAVING TIME DURING MASTER PLANS AND FEASIBILITY STUDIES.

PERSONAL AUTHOR: SHIPMAN, HAROLD R.

DESCRIPTOR: *COST EFFECTIVENESS; *FOREIGN COUNTRIES; *MANAGEMENT; *PLANNING; *PROJECT PLANNING; *RECOMMENDATIONS; *SANITATION; TIME DELAYS; *WASTE DISPOSAL; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 188-191P.

ABSTRACT: THE CAUSES OF EXTENDED DELAYS IN PRODUCING MASTER PLANS AND FEASIBILITY STUDIES FOR WATER AND SANITATION PROJECTS IN DEVELOPING COUNTRIES ARE SCRUTINIZED IN AN EFFORT TO SUGGEST REMEDIES. SUCH DELAYS IN THE PAST HAVE PRODUCED PROJECT COST OVERRUNS WHILE PAPER WORK REQUIREMENTS HAVE MOUNTED, CONSULTANT-CLIENT RELATIONSHIPS HAVE DETERIORATED, AND FINANCING AGENCIES HAVE PROCRASTINATED. IF STEPS ARE TAKEN TO ADDRESS THE CAUSES OF DELAYS AT INCEPTION OF THE PROJECT, THE PATH CAN BE CLEARED OF UNNECESSARY OBSTACLES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N4

IRIS ACCESSION NUMBER: EW007674

PUBLICATION DATE: APR 82

TITLE: NEW METHOD SIMPLIFIES SLUDGE DISPOSAL.

DESCRIPTOR: DESIGN; LIME-SOFTENING; *LIQUEFACTION; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SLUDGE; *SLUDGE DISPOSAL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 110-111P.

ABSTRACT: THIS ARTICLE REPORTS ON A NEW AIR-DIFFUSION METHOD OF SLUDGE LIQUEFACTION WHICH OFFERS A SIMPLE, ECONOMICAL SOLUTION TO THE PROBLEM OF HANDLING AND DISPOSING OF LIME-SOFTENING SLUDGE. BY TAKING ADVANTAGE OF THE THIXOTROPIC PROPERTY OF MAGNESIUM HYDROXIDE, THIS METHOD FEATURES LOW FIRST-COST, SIMPLE EXPANDABILITY, AND LOW OPERATIONAL ENERGY COST.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N4

IRIS ACCESSION NUMBER: EW007675

PUBLICATION DATE: MAR 82

TITLE: THE NATIONAL INTERIM PRIMARY DRINKING WATER REGULATIONS - PART I--HISTORICAL DEVELOPMENT.

PERSONAL AUTHOR: OLECKNO, WILLIAM A.

DESCRIPTOR: *DRINKING WATER; *FEDERAL PROGRAMS; *HISTORY; *LEGISLATIVE HISTORY; *NIPDWR; *PUBLIC HEALTH; *REGULATIONS; *STANDARDS; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 236-239P.

ABSTRACT: THIS ARTICLE IS THE FIRST OF A TWO PART SERIES DEALING WITH THE NATIONAL INTERIM PRIMARY DRINKING WATER REGULATIONS AS THEY APPLY TO COMMUNITY WATER SYSTEMS. THIS PART DISCUSSES THE HISTORICAL DEVELOPMENT OF THE REGULATIONS. SPECIFIC ATTENTION IS FOCUSED ON THE 1962 DRINKING WATER STANDARDS AND THE SAFE DRINKING WATER ACT OF 1974.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V44 N5

IRIS ACCESSION NUMBER: EW007676

PUBLICATION DATE: MAR 82

TITLE: THE NATIONAL INTERIM PRIMARY DRINKING WATER STANDARDS - PART II--IMPACT ON COMMUNITY WATER SYSTEMS; THE INDIANA EXPERIENCE.

PERSONAL AUTHOR: OLECKNO, WILLIAM A.

DESCRIPTOR: *CASE STUDIES; *COMMUNITY WATER SYSTEMS; *DRINKING WATER; FEDERAL PROGRAMS; *INDIANA; *NIPDWR; *OPERATIONS (WATER); PUBLIC HEALTH; *REGULATIONS; STANDARDS; *SURVEYS; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 240-244P.

ABSTRACT: THIS ARTICLE IS THE SECOND PART OF A TWO PART SERIES DEALING WITH THE NATIONAL INTERIM PRIMARY DRINKING WATER REGULATIONS. THIS PART DESCRIBES A STUDY CONDUCTED IN THE STATE OF INDIANA IN 1980 TO ASSESS THE IMPACT OF THE REGULATIONS ON COMMUNITY WATER SYSTEM OPERATIONS. THE PRIMARY PURPOSE OF THE STUDY WAS TO DETERMINE THE DEGREE OF IMPACT OF EACH OF THE MAJOR PROVISIONS ON INDIANA COMMUNITY WATER SYSTEMS AND THE RELATIONSHIP OF SYSTEM SIZE, SOURCE OF WATER SUPPLY, AND SYSTEM OWNERSHIP.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V44 N5

IRIS ACCESSION NUMBER: EW007677

PUBLICATION DATE: MAR 82

TITLE: RELIABILITY OF ON-SITE SEWAGE DISPOSAL SYSTEMS IN FAIRFAX COUNTY, VIRGINIA.

PERSONAL AUTHOR: BOWMAN, JAMES O.

DESCRIPTOR: *CASE STUDIES; FACILITIES; *ONSITE DISPOSAL; *PERFORMANCE EVALUATION; REGULATIONS; *SEPTIC TANKS; *SEWAGE DISPOSAL; SOILS; *SURVEYS; *VIRGINIA; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 249-252P.

ABSTRACT: LONGEVITY OF ON-SITE SEWAGE DISPOSAL SYSTEMS AND THE CAUSES OF FAILURES WERE INVESTIGATED IN FAIRFAX COUNTY, VA., DURING THE PERIOD 1952-1978. CAUSES OF SYSTEM MALFUNCTIONS AND MECHANICAL FAILURES WERE IDENTIFIED. IT WAS CONCLUDED FROM THE STUDY THAT ON-SITE SEWAGE SYSTEMS ARE A VIABLE MEANS OF DISPOSAL OF SMALL WASTE WATER FLOWS WHEN A COMPREHENSIVE REGULATORY PROGRAM IS USED TO DETERMINE SOIL SUITABILITY AND TO MONITOR CONSTRUCTION DURING INSTALLATION.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V44 N5

IRIS ACCESSION NUMBER: EW007687

PUBLICATION DATE: APR 82

TITLE: "PROOFER" MAKES SURE SEWERS ARE FREE FROM OBSTRUCTIONS.

PERSONAL AUTHOR: PETERS, CORDON

DESCRIPTOR: *CASE STUDIES; *CLEANING; *DETECTION; *EQUIPMENT; *MAINTENANCE; *PERFORMANCE EVALUATION; *PIPES; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 54-55P.

ABSTRACT: THIS ARTICLE DISCUSSES THE USE OF THE 'PROOFER', A SIMPLE TOOL THAT DETERMINES WHEN SEWER RODDING IS NEEDED TO SUPPLEMENT HIGH PRESSURE JET CLEANING. CASE STUDIES SHOW THE TOOL TO BE ACCURATE AND COST-EFFECTIVE.

AVAILABILITY: PUBLIC WORKS V113 N4

IRIS ACCESSION NUMBER: EW007688

PUBLICATION DATE: APR 82

TITLE: AUTOMATION COMES TO TITRATION.

PERSONAL AUTHOR: MILLER, GEORGE L.; KUJAWA, EDWARD

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CASE STUDIES; *COMPUTER APPLICATIONS; COMPUTERS; *COST-EFFECTIVENESS; *EQUIPMENT; *INSTRUMENTATION; *LABORATORY PROCEDURES; *LABORATORY EQUIPMENT; *PERFORMANCE EVALUATION; *TITRATION; WATER QUALITY

DESCRIPTIVE NOTE: 64-65P.

ABSTRACT: THIS ARTICLE EXAMINES THE USE OF A COMPUTERIZED TITRATION SYSTEM. PRE-PROGRAMMED SYSTEM AUTOMATICALLY

PERFORMS 10 TITRATIONS IN A SINGLE CYCLE, MAKES ALL CALCULATIONS, DISPLAYS AND PRINTS OUT RESULTS, AND LOGS DATA. CASE STUDIES SHOW THE SYSTEM TO BE ACCURATE, COST-EFFECTIVE, AND A TIME-SAVER.

AVAILABILITY: PUBLIC WORKS V113 N4

IRIS ACCESSION NUMBER: EW007689

PUBLICATION DATE: APR 82

TITLE: MODIFICATIONS UPGRADE PACKAGED SEWAGE LIFT STATION.

PERSONAL AUTHOR: FOX, J. BRUCE

DESCRIPTOR: *CASE STUDIES; *COST EFFECTIVENESS; *EQUIPMENT; *FACILITIES; *LIFT STATIONS; MANAGEMENT; *MODIFICATIONS; *OPERATIONS (WASTEWATER); *PUMP STATIONS; *PUMPS; *SEWERS; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 66-68P.

ABSTRACT: THIS ARTICLE DISCUSSES THE EFFORTS OF THE WEIRTON, WEST VIRGINIA SANITARY BOARD TO SOLVE PROBLEMS WITH THEIR SEWAGE LIFT STATION. AN IN-HOUSE RENOVATION OF A PACKAGE-TYPE PUMP STATION SAVED THE CITY MONEY, ALLEVIATED A HEALTH PROBLEM, AND IMPROVED RELATIONS WITH LOCAL HOMEOWNERS. THE ARTICLE DISCUSSES THE PROBLEM-SOLVING STEPS, EXAMINES THE EQUIPMENT USED, AND PROVIDES SUGGESTIONS FOR OTHERS WITH SIMILAR PROBLEMS.

AVAILABILITY: PUBLIC WORKS V113 N4

IRIS ACCESSION NUMBER: EW007690

PUBLICATION DATE: APR 82

TITLE: CONTROLLING SULFIDES AND ODORS IN SEWERS.

PERSONAL AUTHOR: VIVONA, MORRIS A.; WHALEN, GARY A.

DESCRIPTOR: *AERATION; *DESIGN; EQUIPMENT; *MAINTENANCE; *ODORS; *RESEARCH REPORTS; *SEWERS; *SULFIDES; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 69-72P.

ABSTRACT: THIS ARTICLE PROVIDES TECHNICAL DETAILS OF A SYSTEM FOR AIR INJECTION INTO FORCE MAINS. SPECIFIC ATTENTION IS FOCUSED ON AERATION EFFICIENCY AND ESTIMATES FOR FORCE MAINS. A SECTION IS ALSO INCLUDED DISCUSSING NEEDS FOR FUTURE RESEARCH.

AVAILABILITY: PUBLIC WORKS V113 N4

IRIS ACCESSION NUMBER: EW007692

PUBLICATION DATE: 77

TITLE: DETERMINE NEEDS AND INTERESTS OF STUDENTS - MODULE B-1.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *MOTIVATION; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *STUDENT INTERESTS; *STUDENT NEEDS; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 64P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES A VARIETY OF TECHNIQUES USABLE IN THE DETERMINATION OF STUDENT NEEDS AND INTEREST. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007693

PUBLICATION DATE: 77

TITLE: DEVELOP STUDENT PERFORMANCE OBJECTIVES - MODULE B-2.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *COURSE OBJECTIVES; *CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *OBJECTIVES; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *SKILL DEVELOPMENT; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 56P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY

LEVELS OF INSTRUCTION. THIS MODULE IS DESIGNED TO ASSIST IN THE DEVELOPMENT OF THE SKILL OF WRITING PERFORMANCE OBJECTIVES. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007694

PUBLICATION DATE: 77

TITLE: DEVELOP A UNIT OF INSTRUCTION - MODULE B-3.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *CURRICULUM; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; TRAINING; *UNIT OF INSTRUCTION; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 56P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE DESCRIBES THE VARIOUS KINDS OF INSTRUCTIONAL UNITS AND EXPLAINS HOW THEY CAN BE USED TO IMPROVE INSTRUCTION. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007695

PUBLICATION DATE: 77

TITLE: DEVELOP A LESSON PLAN - MODULE B-4.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *CURRICULUM;

*INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *LESSON PLANS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *SKILL DEVELOPMENT; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 32P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE IS DESIGNED TO ASSIST IN THE DEVELOPMENT OF THE SKILLS NECESSARY TO WRITE A LESSON PLAN. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007696

PUBLICATION DATE: 77

TITLE: SELECT STUDENT INSTRUCTIONAL MATERIALS - MODULE B-5.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *CURRICULUM; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 32P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE PROVIDES CRITERIA FOR THE IDENTIFICATION AND SELECTION OF STUDENT INSTRUCTIONAL MATERIALS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATIO, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007697

PUBLICATION DATE: 77

TITLE: PREPARE TEACHER-MADE INSTRUCTIONAL MATERIALS - MODULE B-6.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER DEVELOPED MATERIALS; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 40P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE DEVELOPMENT AND REPRODUCTION OF TEACHER DEVELOPED MATERIALS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007698

PUBLICATION DATE: 77

TITLE: DIRECT FIELD TRIPS - MODULE C-1.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *FIELD TRIPS; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 56P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE PLANNING AND DIRECTING OF INDIVIDUAL OR GROUP FIELD TRIPS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007699

PUBLICATION DATE: 77

TITLE: CONDUCT GROUP DISCUSSIONS, PANEL DISCUSSIONS, AND SYMPOSIUMS - MODULE C-2.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *CURRICULUM DEVELOPMENT; *GROUP DISCUSSION; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PANEL DISCUSSION; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; SYMPOSIA; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 48P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE PLANNING AND CONDUCTING OF GROUP DISCUSSIONS, PANEL DISCUSSIONS AND SYMPOSIA. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007700

PUBLICATION DATE: 77

TITLE: EMPLOY BRAINSTORMING, BUZZ GROUP, AND QUESTION BOX TECHNIQUES - MODULE C-3.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *MOTIVATION; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *STUDENT PARTICIPATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 24P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE PRESENTS TECHNIQUES TO ENCOURAGE STUDENT PARTICIPATION: BRAINSTORMING, BUZZ GROUPS AND QUESTION BOX. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007701

PUBLICATION DATE: 77

TITLE: DIRECT STUDENTS IN INSTRUCTING OTHER STUDENTS - MODULE C-4.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *SKILL DEVELOPMENT; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *TUTORING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 24P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE PROVIDES EXPERIENCES IN TRAINING AND USING STUDENTS TO TUTOR OTHER STUDENTS AND MAKE CLASSROOM PRESENTATIONS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007702

PUBLICATION DATE: 77

TITLE: EMPLOY SIMULATION TECHNIQUES - MODULE C-5.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; MODELS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; ROLE PLAYING; SECONDARY EDUCATION; *SIMULATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 60P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE USE OF SIMULATION TECHNIQUES IN TEACHING TO MEET LESSON OBJECTIVES AND GAIN COMPETENCIES. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007703

PUBLICATION DATE: 77

TITLE: GUIDE STUDENT STUDY - MODULE C-6.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; HOMEWORK; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *MOTIVATION; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *STUDY SKILLS; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 40P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE PROVIDES SKILLS IN GIVING STUDY ASSIGNMENTS AND SUPERVISING GROUP STUDY. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007704

PUBLICATION DATE: 77

TITLE: DIRECT STUDENT LABORATORY EXPERIENCE - MODULE C-7.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *LABORATORIES; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; PLANNING; SECONDARY EDUCATION; *SUPERVISION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; TEACHING METHODS; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 56P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE DEVELOPMENT OF INSTRUCTIONAL MATERIALS FOR USE IN THE LABORATORY AND THE SUPERVISION OF LABORATORY WORK. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007705

PUBLICATION DATE: 77

TITLE: DIRECT STUDENTS IN APPLYING PROBLEM-SOLVING TECHNIQUES - MODULE C-8.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *PROBLEM SOLVING; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; TEACHING METHODS; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 56P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES PROBLEM SOLVING AS AN INSTRUCTIONAL METHOD IN THE CLASSROOM AND THE LABORATORY. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007706

TITLE: EMPLOY THE PROJECT METHOD - MODULE C-9.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *STUDENT PROJECTS; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *TEACHING METHODS; *VOCATIONAL EDUCATION

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100

PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES EFFECTIVELY PLANNING AND IMPLEMENTING THE PROJECT METHOD. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007707

PUBLICATION DATE: 77

TITLE: INTRODUCE A LESSON - MODULE C-10.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *LESSON PLANNING; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 44P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE ELEMENTS OF A GOOD LESSON INTRODUCTION AND THE SKILLS NEEDED TO PRESENT A GOOD LESSON INTRODUCTION. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007708

PUBLICATION DATE: 77

TITLE: SUMMARIZE A LESSON - MODULE C-11.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *LESSONS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 40P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE IDENTIFICATION OF THE ELEMENTS OF A GOOD LESSON SUMMARY. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007709

PUBLICATION DATE: 77

TITLE: EMPLOY ORAL QUESTIONING TECHNIQUES - MODULE C-12.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *QUESTIONING; *QUESTIONING TECHNIQUES; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; TEACHING METHODS; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 40P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE TECHNIQUES INVOLVED IN EFFECTIVE ORAL QUESTIONING. EACH MODULE PROVIDES

LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007710

PUBLICATION DATE: 77

TITLE: EMPLOY REINFORCEMENT TECHNIQUES - MODULE C-13.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *MOTIVATION; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *REINFORCEMENT TECHNIQUES; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; TEACHING METHODS; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 48P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE VARIOUS TYPES AND USES OF REINFORCEMENT TECHNIQUES IN TEACHING. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007711

TITLE: PROVIDE INSTRUCTION FOR SLOWER AND MORE CAPABLE LEARNERS - MODULE C-14.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INDIVIDUAL DIFFERENCES; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *MOTIVATION; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES PLANNING INSTRUCTION TO ADEQUATELY MEET THE NEEDS OF BOTH THE SLOWER AND MORE CAPABLE STUDENTS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007712

PUBLICATION DATE: 77

TITLE: PRESENT AN ILLUSTRATED TALK - MODULE C-15.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *COMMUNICATION SKILLS; CURRICULUM DEVELOPEMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VERBAL COMMUNICATION; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 44P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE IDENTIFIES TECHNIQUES THAT WILL IMPROVE A PERSON'S ABILITY TO COMMUNICATE VERBALLY WITH STUDENTS. EACH MODULE PROVIDE LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL

INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007713

PUBLICATION DATE: 77

TITLE: DEMONSTRATE A MANIPULATIVE SKILL - MODULE C-16.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *DEMONSTRATIONS (EDUCATIONAL); *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *MANIPULATIVE MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *PSYCHOMOTOR SKILLS; SECONDARY EDUCATION; *SKILL DEVELOPMENT; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES PREPARING FOR AND DEMONSTRATING THE MANIPULATIVE SKILLS NEEDED BY STUDENTS IN THEIR OCCUPATIONAL SPECIALTY. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007714

PUBLICATION DATE: 77

TITLE: DEMONSTRATE A CONCEPT OR PRINCIPLE - MODULE C-17.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *CONCEPTS; CURRICULUM DEVELOPMENT; *DEMONSTRATIONS (EDUCATIONAL); *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; *PROFESSIONAL DEVELOPMENT; *PLANNING; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 52P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE TECHNIQUE OF DEMONSTRATING A CONCEPT OR PRINCIPLE. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007715

PUBLICATION DATE: 77

TITLE: INDIVIDUALIZE INSTRUCTION - MODULE C-18.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INDIVIDUAL DIFFERENCES; *INDIVIDUAL INSTRUCTION; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; STUDENT NEEDS; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; TEACHING METHODS; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 48P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES INDIVIDUALIZING CLASSROOM INSTRUCTION TO MEET THE INDIVIDUAL NEEDS OF STUDENTS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007716

PUBLICATION DATE: 77

TITLE: EMPLOY THE TEAM TEACHING APPROACH - MODULE C-19.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TEAM TEACHING; *TRAINING; *TEACHING METHODS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 28P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES DEVELOPING THE ATTITUDES AND COMPETENCIES NECESSARY TO BE AN EFFECTIVE MEMBER OF A TEACHING TEAM. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007717

PUBLICATION DATE: 77

TITLE: USE SUBJECT MATTER EXPERTS TO PRESENT INFORMATION - MODULE C-20.

DESCRIPTOR: *COMMUNITY RESOURCES; *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *HUMAN RESOURCES; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TEACHING METHODS; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE IDENTIFICATION AND UTILIZATION OF COMMUNITY AND HUMAN RESOURCES. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007718

PUBLICATION DATE: 77

TITLE: PREPARE BULLETIN BOARDS AND EXHIBITS - MODULE C-21.

DESCRIPTOR: *BULLETIN BOARDS; *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *EXHIBITS; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VISUAL AIDS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 44P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE DEVELOPMENT AND PREPARATION OF INSTRUCTIONAL DISPLAYS SUCH AS BULLETIN BOARDS AND EXHIBITS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007719

PUBLICATION DATE: 77

TITLE: PRESENT INFORMATION WITH MODELS, REAL OBJECTS AND FLANNEL BOARDS - MODULE C-22.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; FLANNEL BOARDS; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; MODELS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; TEACHING METHODS; *VISUAL AIDS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 48P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THREE TEACHING TECHNIQUES THAT CAN BE USED TO PRESENT INFORMATION: THE USE OF FLANNEL BOARDS, MODELS AND REAL OBJECTS. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007720

PUBLICATION DATE: 77

TITLE: PRESENT INFORMATION WITH OVERHEAD AND OPQUE MATERIALS - MODULE C-23.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *EQUIPMENT; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *PROJECTION EQUIPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; TEACHING METHODS; *TRANSPARENCIES; *VISUAL AIDS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 52P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE OPERATION OF OVERHEAD AND OPAQUE PROJECTION EQUIPMENT. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007721

PUBLICATION DATE: 77

TITLE: PRESENT INFORMATION WITH FILMSTRIPS AND SLIDES - MODULE C-24.

DESCRIPTOR: *AUDIOVISUAL AIDS; *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; EQUIPMENT; *FILMSTRIPS; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *SLIDES; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 52P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE OPERATION OF FILMSTRIP AND SLIDE EQUIPMENT AND THE USE OF SLIDES AND FILMSTRIPS TO PRESENT INFORMATION. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007722

PUBLICATION DATE: 77

TITLE: PRESENT INFORMATION WITH FILMS - MODULE C-25.

DESCRIPTOR: *AUDIOVISUAL AIDS; *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *EQUIPMENT; *FILMS; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PLANNING; *PERFORMANCE BASED TEACHER EDUCATION; *POST

SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *PROJECTION EQUIPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE OPERATION OF FILM PROJECTION EQUIPMENT AND THE USE OF FILMS TO PRESENT INFORMATION. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007723

PUBLICATION DATE: 77

TITLE: PRESENT INFORMATION WITH AUDIO RECORDINGS - MODULE C-26.

DESCRIPTOR: *AUDIOVISUAL AIDS; *AUDIO EQUIPMENT; AUDIODISC RECORDINGS; AUDIOTAPE RECORDERS; *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *EQUIPMENT; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PLANNING; PERFORMANCE BASED TEACHER EDUCATION; POST SECONDARY EDUCATION; *PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; TEACHER EDUCATION; *TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 52P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE OPERATION OF RECORD PLAYERS AND TAPE RECORDERS AND THEIR USE IN THE PRESENTATION OF INFORMATION. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007724

PUBLICATION DATE: 77

TITLE: PRESENT INFORMATION WITH TELEVISED AND VIDEOTAPED MATERIALS - MODULE C-27.

DESCRIPTOR: *AUDIOVISUAL AIDS; *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; EQUIPMENT; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *TELEVISION; *VIDEO EQUIPMENT; VIDEOTAPE RECORDINGS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE PREPARATION OF VIDEOTAPE PROGRAMS AND THE USE OF THESE PROGRAMS AND TELEVISION IN THE CLASSROOM. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007725

PUBLICATION DATE: 77

TITLE: EMPLOY PROGRAMMED INSTRUCTION - MODULE C-28.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *PROGRAMMED INSTRUCTION; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; TEACHING MACHINES; *TRAINING; *TEACHING METHODS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 48P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE USE OF PROGRAMMED INSTRUCTION, EITHER IN THE FORM OF WRITTEN TEXTS OR THROUGH TEACHING MACHINES. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007726

PUBLICATION DATE: 77

TITLE: PRESENT INFORMATION WITH THE CHALKBOARD AND FLIP CHART - MODULE C-29.

DESCRIPTOR: *CHALKBOARDS; *COMPETENCY BASED EDUCATION; CURRICULUM DEVELOPMENT; *FLIP CHARTS; *INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *PLANNING; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VISUAL AIDS; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 52P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE EFFECTIVE USE OF THE CHALKBOARD AND FLIP CHART IN PRESENTING INFOMATION. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007727

PUBLICATION DATE: 77

TITLE: ESTABLISH STUDENT PERFORMANCE CRITERIA - MODULE D-1.

DESCRIPTOR: COMPETENCY BASED EDUCATION; *EVALUATION; *EVALUATION METHODS; INSTRUCTION; INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; SECONDARY EDUCATION; *STUDENT EVALUATION; TEACHER EDUCATION; *TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 24P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE ESTABLISHMENT OF CRITERIA TO ASSESS STUDENT PERFORMANCE. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007728

PUBLICATION DATE: 77

TITLE: ASSESS STUDENT PERFORMANCE: KNOWLEDGE - MODULE D-2.

DESCRIPTOR: *COGNITIVE MEASUREMENT; *COMPETENCY BASED EDUCATION; EVALUATION; *EVALUATION METHODS; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *KNOWLEDGE; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 56P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE ASSESSMENT OF STUDENT PERFORMANCE AS IT RELATES TO KNOWLEDGE OF FACTS, DATA, AND RELATED INFORMATION. EACH MODULE PROVIDES LEARNING

EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602

IRIS ACCESSION NUMBER: EW007729

PUBLICATION DATE: 77

TITLE: ASSESS STUDENT PERFORMANCE: ATTITUDES - MODULE D-3.

DESCRIPTOR: *AFFECTIVE BEHAVIOR; *ATTITUDES; *COMPETENCY BASED EDUCATION; EVALUATION; *EVALUATION METHODS; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE TECHNIQUES FOR EVALUATING STUDENT AFFECTIVE PERFORMANCE. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007730

PUBLICATION DATE: 77

TITLE: ASSESS STUDENT PERFORMANCE: SKILLS - MODULE D-4.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *EVALUATION; EVALUATION METHODS; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *SECONDARY EDUCATION; *SKILLS (OCCUPATIONAL); *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 28P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE DEVELOPMENT AND ADMINISTRATION OF EVALUATION DEVICES FOR ASSESSING STUDENT PERFORMANCE IN THE OCCUPATIONAL SKILLS AREA. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007731

PUBLICATION DATE: 77

TITLE: DETERMINE STUDENT GRADES - MODULE D-5.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *EVALUATION; EVALUATION METHODS; *GRADES; *GRADING; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE DESCRIBES A VARIETY OF PROCEDURES FOR ASSIGNING GRADES. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITE, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL

INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007732

PUBLICATION DATE: 77

TITLE: EVALUATE YOUR INSTRUCTIONAL EFFECTIVENESS - MODULE D-6.

DESCRIPTOR: *COMPETENCY BASED EDUCATION; *EVALUATION; *EVALUATION METHODS; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; *INSTRUCTIONAL MATERIALS; *PERFORMANCE BASED TEACHER EDUCATION; *POST SECONDARY EDUCATION; PROFESSIONAL DEVELOPMENT; *SECONDARY EDUCATION; *TEACHER EDUCATION; TEACHER IMPROVEMENT; TEACHER PERFORMANCE; *TRAINING; *VOCATIONAL EDUCATION

DESCRIPTIVE NOTE: 32P.

ABSTRACT: THIS MODULE IS ONE OF A SERIES OF 100 PERFORMANCE-BASED TEACHER EDUCATION (PBTE) LEARNING PACKAGES FOCUSING UPON SPECIFIC PROFESSIONAL COMPETENCIES OF VOCATIONAL TEACHERS. THE COMPETENCIES WERE IDENTIFIED AND VERIFIED THROUGH RESEARCH AS BEING IMPORTANT TO SUCCESSFUL VOCATIONAL TEACHING AT BOTH THE SECONDARY AND POST SECONDARY LEVELS OF INSTRUCTION. THIS MODULE EMPHASIZES THE IDENTIFICATION OF SOURCES AND TECHNIQUES NEEDED TO DEVELOP AN EVALUATION PLAN. EACH MODULE PROVIDES LEARNING EXPERIENCES THAT INTEGRATE THEORY AND APPLICATION, AND CULMINATES WITH CRITERION REFERENCED ASSESSMENT OF THE TEACHER'S PERFORMANCE OF THE SPECIFIED COMPETENCY. THE MATERIALS ARE DESIGNED FOR USE BY INDIVIDUALS AND/OR GROUPS OF TEACHERS WORKING UNDER THE DIRECTION OF TEACHER EDUCATORS. EACH MODULE CONTAINS OBJECTIVES, PREREQUISITES, LEARNING RESOURCES, LEARNING EXPERIENCES, AND A TEACHER PERFORMANCE ASSESSMENT FORM.

AVAILABILITY: AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS (AAVIM), 120 ENGINEERING CENTER, UNIVERSITY OF GEORGIA, ATHENS, GA 30602.

IRIS ACCESSION NUMBER: EW007737

TITLE: STREAM FLOW, SUSPENDED, AND DISSOLVED SOLIDS - UNIT 4.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ENVIRONMENTAL EDUCATION; *FLOW; *INSTRUCTIONAL MATERIALS; *MEASUREMENT TECHNIQUES; *POST SECONDARY EDUCATION; *SECONDARY EDUCATION; *SKILLS DEVELOPMENT; *STREAMS; *WATER QUALITY; *WATER RESOURCES

ABSTRACT: PRESENTED IS A SKILLS-DEVELOPMENT, INSTRUCTIONAL UNIT DESIGNED TO INTRODUCE THE CONCEPTS OF WADEABLE STREAM FLOW MEASUREMENT AND THE GRAVIMETRIC DETERMINATION OF SUSPENDED AND DISSOLVED SOLIDS. PREPARED FOR TEACHERS WISHING TO INITIATE COMMUNITY-BASED, PROBLEM-SOLVING STUDIES AS A SUPPLEMENT TO THE REGULAR CURRICULUM THE UNIT CONSISTS OF A FILMSTRIP AND AUDIO-TAPE; EQUIPMENT AND SUPPLY LIST; PROCEDURES FOR THE DETERMINATION OF FLOW, SUSPENDED SOLIDS, AND DISSOLVED SOLIDS; EXAMPLES OF CALCULATIONS; AND MATERIALS FOR STUDENT HANDOUTS.

AVAILABILITY: INSTITUTE FOR ENVIRONMENTAL EDUCATION, 8911 EUCLID AVENUE, CLEVELAND, OHIO 44106

IRIS ACCESSION NUMBER: EW007739

PUBLICATION DATE: 77

TITLE: A GUIDE TO ROUTINE LABORATORY PROCEDURES FOR NPDES EFFLUENT MONITORING AND REPORTING.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; *EFFLUENTS; FACILITIES; *GUIDELINES; *LABORATORY MANUALS; *LABORATORY PROCEDURES; LABORATORY TECHNIQUES; *MEASUREMENT TECHNIQUES; *MONITORING; *OPERATIONS (WASTEWATER); *REPORTS; UTILITIES; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 146P.

ABSTRACT: PRESENTED ARE THE OPERATIONAL LABORATORY PROCEDURES FOR EFFLUENT MONITORING AND REPORTING IN WASTEWATER TREATMENT FACILITIES AS DEVELOPED BY THE USEPA'S OFFICE OF WATER PROGRAM OPERATIONS - NATIONAL TRAINING AND OPERATIONAL TECHNOLOGY CENTER AS OF THIS DATE. THESE PROCEUDRES HAVE BEEN EXCERPTED FROM EITHER "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, 14TH EDITION," OR "METHODS FOR THE CHEMICAL ANALYSIS OF WATER AND WASTES" AS DEVELOPED BY THE USEPA'S METHODS DEVELOPMENT AND QUALITY ASSURANCE LABORATORY, 1974. DETAILED ARE THE FOLLOWING PROCEDURES: FIVE-DAY BIOCHEMICAL OXYGEN DEMAND, WINKLER DETERMINATION OF DISSOLVED OXYGEN - AZIDE MODIFICATION, DETERMINATION OF THE DISSOLVED OXYGEN IN WASTEWATER BY THE POLAROGRAPHIC PROBE METHOD, PH DETERMINATION, FECAL COLIFORM TEST BY THE MEMBRANE FILTER METHOD, DETERMINATION OF TOTAL SUSPENDED (NON-FILTERABLE) SOLIDS, AND REPORTING SELF-MONITORING DATA.

AVAILABILITY: ALLEGHENY COUNTY HEALTH DEPARTMENT, WATER POLLUTION CONTROL PROGRAM, 40TH STREET & PENN AVENUE, PITTSBURGH, PA 15224

IRIS ACCESSION NUMBER: EW007783

PUBLICATION DATE: NOV 81

TITLE: DEVELOPMENT OF THE CANADIAN COAST GUARD OIL HARVESTER.

PERSONAL AUTHOR: GILL, S. D.; GAUTHIER, E.

DESCRIPTOR: *CASE STUDIES; *EQUIPMENT; *OIL RECOVERY; *OIL SPILLS; *PERFORMANCE; *TECHNOLOGICAL ADVANCEMENTS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 215-218P.

ABSTRACT: THIS ARTICLE DESCRIBES DEVELOPMENT AND TESTING OF THE OIL HARVESTER, A NEW DEVICE FOR CLEANING UP OIL SPILLS.

THIS DEVICE, WHICH USES A HAY BALE ELEVATOR AS A STARTING COMPONENT, IS PROMISING FOR HEAVY OIL RECOVERY AND CAN BE BUILT CHEAPLY.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V6 N6

IRIS ACCESSION NUMBER: EW007784

PUBLICATION DATE: NOV 81

TITLE: THE CASE FOR DEVISING A SHORELINE PROTECTION AND CLEANUP MANUAL.

PERSONAL AUTHOR: POND, STEVE

DESCRIPTOR: *CASE STUDIES; *COASTAL ZONES; DATA ACQUISITION; *GUIDES; *MANUALS; *OCEANOGRAPHY; *OIL SPILLS; PERFORMANCE EVALUATION; PLANNING; *SHORELINE PROTECTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 219-222P.

ABSTRACT: THIS ARTICLE DESCRIBES DEVELOPMENT OF A SHORELINE PROTECTION AND CLEANUP MANUAL. THE MANUAL CONSISTS OF THREE MAJOR SECTIONS: A SITE PRIORIZATION SCHEME; A SET OF REGIONAL RESPONSES, OPERATIONAL, AND TACTICAL MAPS; AND, A SERIES OF VIDEOCASSETTES. USE OF THE MANUAL IN A REAL OIL SPILL CASE IS DISCUSSED.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V6 N6

IRIS ACCESSION NUMBER: EW007785

PUBLICATION DATE: NOV 81

TITLE: EVALUATION OF THREE OIL SPILL TRACKING BUOYS.

PERSONAL AUTHOR: FINCAS, M. F.; LEA B.

DESCRIPTOR: *BUOYS; *EQUIPMENT; *OIL SPILLS; *PERFORMANCE EVALUATION; *TRACKING BUOYS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 223-225P.

ABSTRACT: THIS ARTICLE EXAMINES THREE OIL SPILL TRACKING BUOYS AND PRESENTS THE RESULTS OF A PERFORMANCE TEST. TWO OF THE DEVICES, THE ORION 2100 AND THE NOVATECH RF 200, WERE FOUND TO BE USEFUL FOR SIMULATING SLICK MOVEMENT.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V6 N6

IRIS ACCESSION NUMBER: EW007786

PUBLICATION DATE: APR 82

TITLE: DOMES, BUBBLES AND PAPER WASTE.

PERSONAL AUTHOR: KINZEL, RALPH; RUSHTON, H.

DESCRIPTOR: *AERATION; *CASE STUDIES; *DESIGN; *FACILITIES; *INDUSTRIAL WASTES; MANAGEMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PULP WASTES; *PAPER MILLS; *WASTEWATER TREATMENT; *WISCONSIN

DESCRIPTIVE NOTE: 47-48P.

ABSTRACT: THIS ARTICLE EXAMINES HOW A WISCONSIN WASTEWATER TREATMENT PLANT USED FINE BUBBLE AERATION TO SOLVE ITS PROBLEMS OF PULP AND PAPER MILL DISCHARGES. THE PLANT HANDLES 95 PERCENT INDUSTRIAL AND 5 PERCENT MUNICIPAL WASTES AND RUNS AT 4.2 MGD. IN ADDITION TO REQUIRING LESS LAND AREA, THE CONCEPT HAS ELIMINATED PROBLEMS COMMON WITH MECHANICAL SURFACE AERATORS AND HAS REDUCED ENERGY USE CONSIDERALLY.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N4

IRIS ACCESSION NUMBER: EW007787

PUBLICATION DATE: APR 82

TITLE: PILOTING MAG-CARBONATE TREATMENT.

PERSONAL AUTHOR: TAYLOR, T. E.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *COST EFFECTIVENESS; *DESIGN; *EQUIPMENT; *FACILITIES; *MAGNESIUM CARBONATE PROCESS; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *PILOT PLANTS; SLUDGE; *SLUDGE DISPOSAL; *WATER TREATMENT

DESCRIPTIVE NOTE: 50-55P.

ABSTRACT: THIS ARTICLE REPORTS ON A LARGE-SCALE PILOT EVALUATION OF THE MAGNESIUM CARBONATE WATER TREATMENT PROCESS. THE TESTING TOOK PLACE AT A 300,000 GPD WATER TREATMENT PLANT OF THE DALLAS WATER UTILITIES. THE MAG-CARBONATE PROCESS WORKED VERY WELL AND SOLVED MANY OF THE PROBLEMS INHERENT IN SLUDGE DISPOSAL. ALL ASPECTS OF THE PILOT TESTS ARE DISCUSSED INCLUDING ECONOMIC FACTORS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N4

IRIS ACCESSION NUMBER: EW007788

PUBLICATION DATE: APR 82

TITLE: PACKAGED PLANT TREATS TRUBIDITY.

PERSONAL AUTHOR: BURNHAM, ROY A.; TRINKA, WALTER C.

DESCRIPTOR: *CASE STUDIES; *CONSTRUCTION; *EQUIPMENT; *FACILITIES; *OPERATIONS (WATER); PERFORMANCE EVALUATION; PUBLIC HEALTH; *RURAL AREAS; SEDIMENTATION; SUSPENDED SOLIDS; *TURBIDITY; WATER COLLECTION; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 56-57P.

ABSTRACT: THIS ARTICLE EXAMINES HOW A SMALL COMMUNITY WITH

PURE SOURCE WATER DEALT WITH THE PROBLEM OF TURBIDITY CAUSED BY SEDIMENT AND OTHER FOREIGN MATERIAL. THE TOWN APPLIED FOR FEDERAL, REGIONAL, AND STATE GRANTS TO BUILD A NEW CLARIFICATION AND FILTERING SYSTEM. THE PROJECT ALSO INCLUDED WATER LINES, METERS, GATE VALVES, INTAKE STRUCTURES, A STORAGE TANK, AND TRANSMISSION PIPELINES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N4

IRIS ACCESSION NUMBER: EW007789

PUBLICATION DATE: APR 82

TITLE: SOLUTIONS TO WATER HAMMER PROBLEMS.

PERSONAL AUTHOR: GENERKE, WILLIAM

DESCRIPTOR: *DAMAGE PREVENTION; *EQUIPMENT; *MAINTENANCE; *OPERATIONS (WATER); *PIPES; *PROBLEM SOLVING; TURBINE GATES; *VALVES; *WATER DISTRIBUTION; *WATER HAMMER

DESCRIPTIVE NOTE: 58-60P.

ABSTRACT: THIS ARTICLE DISCUSSES A SIMPLE PROCESS FOR SOLVING THE DAMAGE THAT WATER HAMMER CAN CAUSE. THIS PROCESS INVOLVES EITHER SLOWING THE VALVE CLOSING TIME OR ESTABLISHING AN ESCAPE HATCH FOR THE WATER.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N4

IRIS ACCESSION NUMBER: EW007790

PUBLICATION DATE: SPR 82

TITLE: EVALUATION OF A MAXIMUM/MINIMUM GROUND-WATER MONITORING SYSTEM.

PERSONAL AUTHOR: ELLIOTT, ROY; PEDERSON, DARRYLL

DESCRIPTOR: *DATA COLLECTION; *EQUIPMENT; *GROUNDWATER; *HYDROGEOLOGY; *INSTRUMENTATION; *MEASUREMENT INSTRUMENTS; *MONITORING; *PERFORMANCE EVALUATION; *RECORDERS; *RESEARCH REPORTS; *WATER RESOURCES; *WATER SUPPLY; *WELLS

DESCRIPTIVE NOTE: 30-35P.

ABSTRACT: THIS ARTICLE DESCRIBES A MODIFIED VERSION OF WALKER'S MAXIMUM/MINIMUM RECORDER. IT WAS BUILT AND FIELD TESTED DURING 1979 AT TWO FIELD SITES, BOTH HAVING EXTENSIVE IRRIGATION WELL DEVELOPMENT AND MULTIPLE AQUIFER UNITS. WATER-LEVEL DATA OBTAINED FROM THESE TWO SPECIFIC HYDROLOGIC SETTINGS AND FROM MAX/MIN AND CONTINUOUS RECORDERS ARE COMPARED IN THIS REPORT. RESULTS SHOWED THE MAX/MIN RECORDER SIMPLE TO BUILD, EASY TO MAINTAIN, AND RELIABLE.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V2 N2

IRIS ACCESSION NUMBER: EW007791

PUBLICATION DATE: SPR 82

TITLE: SYRINGE DEVICES FOR GROUND-WATER SAMPLING.

PERSONAL AUTHOR: GILHAM, ROBERT W.

DESCRIPTOR: *CASE STUDIES; *EQUIPMENT; *GROUNDWATER; *MONITORING; *PERFORMANCE EVALUATION; *SAMPLING; *SYRINGE SAMPLERS; *TECHNOLOGICAL ADVANCEMENTS; *WATER QUALITY; WATER RESOURCES; *WELLS

DESCRIPTIVE NOTE: 36-39P.

ABSTRACT: THIS ARTICLE DESCRIBES THREE SYRINGE-SAMPLING DEVICES THAT HAVE BEEN DEVELOPED AT THE UNIVERSITY OF WATERLOO. APPLICATIONS OF THESE SYRINGE-SAMPLERS IN CASE STUDIES ARE ALSO PROVIDED AS IS DISCUSSION OF THE SPECIFIC ADVANTAGES OF EACH DESIGN.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V2 N2

IRIS ACCESSION NUMBER: EW007798

PUBLICATION DATE: JAN 81

TITLE: CONSTRUCTION COSTS FOR MUNICIPAL WASTEWATER CONVEYANCE SYSTEMS: 1973-1979.

DESCRIPTOR: *CONSTRUCTION; *COSTS; *DATA ANALYSIS; DESIGN; *ECONOMIC FACTORS; *FACILITIES; *MUNICIPALITIES; *PROJECT COSTS; *PUMP STATIONS; *SEWERS; *SEWER SYSTEMS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 119P. FRD-21

ABSTRACT: THIS REPORT PRESENTS THE RESULTS OF A STUDY OF THE COSTS FOR CONSTRUCTION OF MUNICIPALLY OWNED WASTEWATER COLLECTION SYSTEMS. THE COST DATA USED IN THIS REPORT ARE DERIVED FROM THE WINNING BID DOCUMENTS OF PROJECTS FUNDED BY THE FEDERAL WATER POLLUTION CONTROL ACT. COSTS ARE ANALYZED FOR GRAVITY SEWERS, FORCE MAINS, PUMP STATIONS, AND OTHER NON-CONSTRUCTION PARAMETERS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007799

PUBLICATION DATE: FEB 80

TITLE: INNOVATIVE AND ALTERNATIVE TECHNOLOGY ASSESSMENT MANUAL.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ASSESSMENT; *CLEAN WATER ACT; *COSTS; *ENERGY; *GRANTS; *MANUALS; *TECHNOLOGICAL ADVANCEMENTS; *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 440P. CD-53

ABSTRACT: THIS MANUAL PRESENTS THE PROCEDURES AND METHODOLOGY AS WELL AS THE BASELINE COST AND ENERGY INFORMATION NECESSARY FOR THE ANALYSIS AND EVALUATION OF INNOVATIVE AND ALTERNATIVE TECHNOLOGY APPLICATIONS SUBMITTED FOR FEDERAL GRANT ASSISTANCE UNDER THE INNOVATIVE AND ALTERNATIVE TECHNOLOGY PROVISIONS OF THE CLEAN WATER ACT OF 1977. THE MANUAL CLARIFIES AND INTERPRETS THE INTENT OF CONGRESS AND THE ENVIRONMENTAL PROTECTION AGENCY IN CARRYING OUT THE MANDATES OF THE INNOVATIVE AND ALTERNATIVE PROVISIONS OF THE CLEAN WATER ACT OF 1977.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007801

PUBLICATION DATE: 69

TITLE: FIELD STUDIES NOTEBOOK.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; BIOLOGICAL SCIENCES; *BIOLOGY; *DATA COLLECTION; *ECOLOGY; *FIELD STUDIES; *GUIDES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; LAKES; PONDS; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; STREAMS; *WORKBOOKS

DESCRIPTIVE NOTE: 40P. PRICE: $1.00 PLUS $.03 PER PAGE.

ABSTRACT: THIS NOTEBOOK CONTAINS FIELD AND LABORATORY PROCEDURES FOR AQUATIC INVESTIGATIONS. ALSO INCLUDED ARE DATA REPORTING SHEETS AND MAPS. THE NOTEBOOK IS DESIGNED FOR A COURSE IN FRESHWATER BIOLOGY AND POLLUTION ECOLOGY.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007804

PUBLICATION DATE: MAY 82

TITLE: COMPUTERIZED MAINTENANCE - A SATISFIED CUSTOMER.

PERSONAL AUTHOR: KLEINPETER, JOSEPH

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTERS; *DATA ANALYSIS; *ENGINEERING; *EQUIPMENT; *MAINTENANCE; *MANAGEMENT; *OPERATIONS; *PLANNING; *PLANT PERFORMANCE

DESCRIPTIVE NOTE: 71-75P.

ABSTRACT: THIS ARTICLE EXAMINES THE ADVANTAGES OF AND ALTERNATIVE APPROACHES TO COMPUTERIZING A PLANT MAINTENANCE PROGRAM. TOPICS DISCUSSED INCLUDE: PRE-PLANNING, ESTABLISHING A DATA BASE, COMPUTER PROGRAMMING, OVERCOMING COMPUTER FEARS, MANAGEMENT/CONTRACT FIRMS, AND JUSTIFYING A COMPUTER PROGRAM.

AVAILABILITY: CONSULTING ENGINEERING, V58 N5

IRIS ACCESSION NUMBER: EW007805

PUBLICATION DATE: 81

TITLE: CALCULATOR PROGRAMMING FOR CHEMISTRY AND THE LIFE SCIENCES.

PERSONAL AUTHOR: CLARKE, FRANK H.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CALCULATORS; *CHEMISTRY; *DATA PROCESSING; *GUIDES; *INSTRUMENTATION; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *MOLECULES; *PROGRAMMING; *PROGRAMMABLE CALCULATORS; *REGRESSION ANALYSIS; *STATISTICS; *TITRATION

DESCRIPTIVE NOTE: 233P. PRICE: $24.50

ABSTRACT: THIS BOOK DESCRIBES THE USE OF THE PROGRAMMABLE CALCULATOR AS A TOOL FOR LABORATORY SCIENTISTS. PROGRAMS ARE PROVIDED FOR DIRECT USE AND EXPLAINED SUFFICIENTLY FOR POTENTIAL MODIFICATIONS. PROGRAM EXAMPLES ARE GIVEN FOR THREE MAIN AREAS: MOLECULAR SHADES, POTENTIOMETRIC TITRATIONS, AND REGRESSION ANALYSIS.

AVAILABILITY: ACADEMIC PRESS, INC., 111 FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW007806

PUBLICATION DATE: 81

TITLE: LABORATORY MINICOMPUTING.

PERSONAL AUTHOR: BOURNE, JOHN R.

DESCRIPTOR: *COMPUTERS; *DATA PROCESSING; GUIDES; *INSTRUMENTATION; *INSTRUCTIONAL MATERIALS; *LABORATORIES; *LABORATORY AIDS; *MINICOMPUTERS; *POST SECONDARY EDUCATION

DESCRIPTIVE NOTE: 320P. PRICE: $27.00

ABSTRACT: THIS TEXTBOOK REVIEWS FUNDAMENTALS OF USAGE OF MINICOMPUTERS IN A LABORATORY ENVIRONMENT. SEVERAL DIFFERENT TYPES OF INPUT/OUTPUT METHODS ARE CAREFULLY EXAMINED. ALSO INCLUDED ARE SURVEYS OF COMPUTER HARDWARE PLUS TRADEOFFS BETWEEN VARIOUS HARDWARE OPTIONS.

AVAILABILITY: ACADEMIC PRESS, INC., 111 FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW007807

PUBLICATION DATE: 82

TITLE: 1982 DSS PROCEEDINGS.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; DESIGN; *EQUIPMENT; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WATER); PERFORMANCE EVALUATION; *SYMPOSIA; *WATER SUPPLY; *WATER DISTRIBUTION; WATER RESOURCES; WATER STORAGE

DESCRIPTIVE NOTE: PRICE: $9.75 MEMBERS, $13.00 NONMEMBERS.

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE AMERICAN WATER WORKS ASSOCIATION'S 1982 DISTRIBUTION SYSTEM SYMPOSIUM. TOPICS ADDRESSED INCLUDE: METERS, CROSS-CONNECTION, VALVES, PUMPS, PIPES, WATER STORAGE TANKS, OPERATIONS, MAINTENANCE, AND MANAGEMENT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, DATA PROCESSING DEPT., 6666 W. QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007808

PUBLICATION DATE: 82

TITLE: CHEMICAL ANALYSIS OF INORGANIC CONSTITUENTS OF WATER.

PERSONAL AUTHOR: VAN LOON, JON C.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHROMATOGRAPHY; EQUIPMENT; *INORGANIC COMPOUNDS; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *POST SECONDARY EDUCATION; SPECTROMETRY; SPECTROPHOTOMETRY; TITRATION; *WATER QUALITY

DESCRIPTIVE NOTE: 288P. PRICE: $84.50

ABSTRACT: THIS VOLUME DESCRIBES THE ANALYSIS OF CHEMICALS IN WATER FROM MAINTAINING SAMPLE INTEGRITY TO ANALYTICAL PROCEDURES THROUGH THE INTERPRETATION OF RESULTS. DETERMINATION OF VARIOUS CHEMICALS IN A SAMPLE ARE DESCRIBED VIA THE FOLLOWING ANALYTICAL METHODS: EDTA COMPLEXOMETRIC TITRATION, ATOMIC ADSORPTION SPECTROPHOTOMETRY, ATOMIC EMMISSION SPECTROMETRY, ION-SELECTIVE ELECTRODE METHODS, ION CHROMATOGRAPHY, AND FLAME PHOTOMETRY. PROCEDURES, REAGENTS, EQUIPMENT, AND CALCULATIONS ARE INCLUDED FOR EACH METHOD ARE DISCUSSED.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., N.W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW007809

PUBLICATION DATE: 82

TITLE: ANALYSIS OF PESTICIDES IN WATER - VOLUME I: SIGNIFICANCE, PRINCIPLES, TECHNIQUES, AND CHEMISTRY OF PESTICIDES.

PERSONAL AUTHOR: CHAU, ALFRED S. Y.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHEMISTRY; INSECTICIDES; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *PESTICIDES; *POST SECONDARY

EDUCATION; *STATE-OF-THE-ART REVIEWS; *WATER QUALITY

DESCRIPTIVE NOTE: 216P. PRICE: $69.50

ABSTRACT: THIS PUBLICATION CONTAINS A DETAILED SURVEY OF THE ANALYTICAL METHODOLOGY USED IN THE ANALYSIS OF PESTICIDES. ESSENTIAL BACKGROUND INFORMATION EMPHASIZING PRACTICAL ASPECTS OF VARIOUS METHODS IS GIVEN. ADVANTAGES AND DISADVANTAGES OF METHODS ARE EXAMINED AND THE EXPERIENCES OF THE AUTHOR ARE DISCUSSED. THIS VOLUME CONTAINS THE FOLLOWING CHAPTERS: ENVIRONMENTAL IMPACT AND SIGNIFICANCE OF PESTICIDES, BASIC PRINCIPLES AND PRACTICES IN THE ANALYSIS OF PESTICIDES, POSITIVE IDENTIFICATION OF PESTICIDE RESIDUES BY CHEMICAL DERIVATION TECHNIQUE, AND THE CHEMISTRY OF CYCLODIENE INSECTICIDES.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., N.W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW007810

PUBLICATION DATE: 82

TITLE: ANALYSIS OF PESTICIDES IN WATER - VOLUME II: CHLORINE AND PHOSPHORUS CONTAINING PESTICIDES.

PERSONAL AUTHOR: CHAU, ALFRED S. Y.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHEMISTRY; EVALUATION; HERBICIDES; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; ORGANOCHLORINES; ORGANOPHOSPHATES; *PESTICIDES; PHENOXY ALKYL ACIDS; *POST SECONDARY EDUCATION; *STATE-OF-THE-ART REVIEWS; *WATER QUALITY

DESCRIPTIVE NOTE: 288P. PRICE: $72.00

ABSTRACT: THIS PUBLICATION CONTAINS A DETAILED SURVEY OF THE ANALYTICAL METHODOLOGY USED IN THE ANALYSIS OF PESTICIDES. ESSENTIAL BACKGROUND INFORMATION EMPHASIZING PRACTICAL ASPECTS OF VARIOUS METHODS IS GIVEN. ADVANTAGES AND DISADVANTAGES OF METHODS ARE EXAMINED AND THE EXPERIENCES OF THE AUTHOR ARE DISCUSSED. CHAPTERS IN THIS VOLUME INCLUDE: ORGANOCHLORINE PESTICIDES, ORGANOPHOSPHORORUS PESTICIDES, AND PHENOXY ALKYL ACID HERBICIDES.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW007811

PUBLICATION DATE: 82

TITLE: ANALYSIS OF PESTICIDES IN WATER - VOLUME III: NITROGEN CONTAINING PESTICIDES.

PERSONAL AUTHOR: CHAU, ALFRED S. Y.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CARBAMATES; *CHEMICAL ANALYSIS; CHEMISTRY; HERBICIDES; *INSTRUCTIONAL MATERIALS;

*LABORATORY TECHNIQUES; *PESTICIDES; *POST SECONDARY EDUCATION; *STATE-OF-THE-ART REVIEWS; TRIAZINE; *WATER QUALITY

DESCRIPTIVE NOTE: 288P.

ABSTRACT: THIS PUBLICATION CONTAINS A DETAILED SURVEY OF THE ANALYTICAL METHODOLOGY USED IN THE ANALYSIS OF PESTICIDES. ESSENTIAL BACKGROUND INFORMATION EMPHASIZING PRACTICAL ASPECTS OF VARIOUS METHODS IS GIVEN. ADVANTAGES AND DISADVANTAGES OF METHODS ARE EXAMINED AND THE EXPERIENCES OF THE AUTHOR ARE DISCUSSED. CHAPTERS IN THIS VOLUME INCLUDE: CARBAMATES, THE SUBSTITUTE AREA HERBICIDES, AND TRIAZINE HERBICIDES.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., N.W., BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW007812

PUBLICATION DATE: 81

TITLE: PROCEEDINGS OF THE SYMPOSIUM ON SURFACE WATER IMPOUNDMENTS.

PERSONAL AUTHOR: STEFAN, H. G.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *DAMS; *DESIGN; ECOLOGY; *ENGINEERING; *MANAGEMENT; *PLANNING; RESEARCH REPORTS; *RESERVOIRS; *RIVERS; *SURFACE WATER; SYMPOSIA; *WATER IMPOUNDMENT; *WATER RESOURCES; *WATER STORAGE; *WATER SUPPLY

DESCRIPTIVE NOTE: 1,682P. PRICE: $115.00

ABSTRACT: PRESENTED IN THIS TWO-VOLUME SET ARE PAPERS ON THE ANALYSIS OF EXISTING SURFACE WATER IMPOUNDMENTS AND PLANNING NEW IMPOUNDMENTS TO ACHIEVE THE BEST WATER RESOURCE MANAGEMENT OBJECTIVES. TOPICS INCLUDE PLANNING AND DESIGN, MANAGEMENT AND OPERATION OF IMPOUNDMENTS, SPECIAL PURPOSE IMPOUNDMENTS, RECENT RESEARCH FINDINGS ON PHYSICAL, CHEMICAL AND BIOLOGICAL PROCESSES IN RESERVOIRS, AND IMPOUNDMENTS ON TWO MAJOR U.S. RIVERS: RUN-OF-THE-RIVER IMPOUNDMENTS ON THE MISSISSIPPI, AND DEEP STORAGE RESERVOIRS ON THE COLORADO RIVER.

AVAILABILITY: AMERICAN SOCIETY OF CIVIL ENGINEERS, 345 EAST 47TH STREET, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW007813

PUBLICATION DATE: 81

TITLE: WATER POLLUTION RESEARCH AND DEVELOPMENT.

PERSONAL AUTHOR: JENKINGS, S. H.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *POLLUTION; *RESEARCH; *RESEARCH REPORTS; *WATER POLLUTION CONTROL; WATER QUALITY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 1,388P. PRICE: $195.00

ABSTRACT: COMPILED ARE PAPERS SELECTED FOR THE TENTH BIENNIAL CONFERENCE OF THE INTERNATIONAL ASSOCIATION ON WATER POLLUTION RESEARCH HELD IN 1980 IN TORONTO, ONTARIO. PAPERS WERE CHOSEN FOR THEIR CONTRIBUTION TO WATER POLLUTION CONTROL AND THEIR POTENTIAL TO GENERATE DISCUSSION ON THE WORKS REPORTED IN THE PAPERS. EDITED DISCUSSIONS OF THE PAPERS ARE INCLUDED.

AVAILABILITY: PERGAMON PRESS, INC., MAZWELL HOUSE, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW007814

PUBLICATION DATE: 81

TITLE: HEALTH ASPECTS OF TREATED SEWAGE REUSE.

DESCRIPTOR: *DEVELOPING NATIONS; DISEASE CONTROL; *HEALTH; *HYGIENE; *PUBLIC HEALTH; *RECYCLING; *SANITATION; *SEWAGE; *SEWAGE REUSE; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER POLLUTION; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 44P. PRICE: $3.00

ABSTRACT: DESCRIBES THE PUBLIC HEALTH HAZARDS AND PROBLEMS ASSOCIATED WITH THE REUSE OF TREATED SEWAGE. SAFE APPLICATION SITES FOR TREATED SEWAGE ARE SPECIFIED.

AVAILABILITY: WHO PUBLICATIONS CENTER U.S.A., 49 SHERIDAN AVENUE, ALBANY, NY 12210

IRIS ACCESSION NUMBER: EW007815

PUBLICATION DATE: 82

TITLE: PROCESS CHEMISTRY FOR WATER AND WASTEWATER TREATMENT.

PERSONAL AUTHOR: BENEFIELD, LARRY D.; AND OTHERS

DESCRIPTOR: CARBON ADSORPTION; *CHEMICAL ANALYSIS; CHEMICAL EQUILIBRIUM; *CHEMISTRY; COLLOIDS; CHEMICAL REACTIONS; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PROCESS CONTROL; *REFERENCE MATERIALS; *WASTEWATER TREATMENT; WATER QUALITY; WATER SOFTENING; *WATER TREATMENT

DESCRIPTIVE NOTE: 510P. PRICE: $29.95

ABSTRACT: COVERED ARE FUNDAMENTALS, ACID-BASE SOLUBILITY, OXIDATION-REDUCTION EQUILIBRIA, PROCESS KINETICS, COLLOIDAL CHEMISTRY, COAGULATION, AND CARBON ADSORPTION. ALSO DISCUSSED ARE WATER SOFTENING, ION-EXCHANGE AND THE REMOVAL OF CERTAIN SPECIFIC MATERIALS.

AVAILABILITY: PRENTICE-HALL, INC., ORDER DEPARTMENT, P. O. BOX 21X, ENGLEWOOD CLIFFS, NJ 07632

IRIS ACCESSION NUMBER: EW007816

PUBLICATION DATE: MAY 81

TITLE: INSTITUTIONAL BARRIERS TO IMPLEMENTING 208 WATER QUALITY MANAGEMENT PLANS IN THE SOUTHEAST: VOLUME I - TECHNICAL REPORT. PART I - INSTITUTIONAL BARRIERS.

PERSONAL AUTHOR: BOWEN, GEORGE E.; GANGAWARE, TIMOTHY

DESCRIPTOR: *CITIZEN PARTICIPATION; *INSTITUTIONAL BARRIERS; *MANAGEMENT; *MANAGEMENT PLANS; *PLANNING; PUBLIC OPINION; *RESEARCH REPORTS; *STATE PROGRAMS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 193P. PB82-153537; PRICE CODE: PC A09/MF A01

ABSTRACT: THE PRIMARY OBJECTIVE OF THE STUDY WAS TO MAKE COMPARISONS AND ASSESSMENTS OF INSTITUTIONAL BARRIERS AND INTER-AGENCY RELATIONSHIPS WHICH IMPAIRED THE ABILITY OF 208 AREAWIDE AGENCIES TO DEVELOP ACCEPTABLE COMPREHENSIVE WATER QUALITY MANAGEMENT PLANS WITHIN THE SOUTHEASTERN UNITED STATES. A SECONDARY OBJECTIVE OF THE STUDY FOCUSED ON AN ANALYSIS OF CITIZEN PARTICIPATION MECHANISMS EMPLOYED IN THE DEVELOPMENT OF THE 208 PROGRAMS, IN ORDER TO DEVELOP ALTERNATIVE APPROACHES FOR ENHANCING GENERAL PUBLIC INPUT INTO WATER QUALITY MANAGEMENT PROGRAMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007817

PUBLICATION DATE: MAY 81

TITLE: INSTITUTIONAL BARRIERS TO WATER QUALITY PLANNING AND MANAGEMENT IN THE SOUTHEAST: VOLUME II - TECHNICAL REPORT. PART II - ISSUES, PROBLEMS, AND DATA.

PERSONAL AUTHOR: BOWEN, GEORGE E.; GANGAWARE, TIMOTHY

DESCRIPTOR: *CASE STUDIES; *CITIZEN PARTICIPATION; *INSTITUTIONAL BARRIERS; *LEGAL ASPECTS; *MANAGEMENT; *PLANNING; PUBLICATIONS; *REFERENCE MATERIALS; *REGULATIONS; *RESEARCH REPORTS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 194P. PB82-153545; PRICE CODE: PC A09/MF A01

ABSTRACT: THIS VOLUME WAS INTENDED TO BE A REFERENCE DOCUMENT FOR PERSONS UNFAMILIAR WITH MANY OF THE ISSUES AND PROBLEMS ASSOCIATED WITH WATER QUALITY PLANNING AND MANAGEMENT. AS A REFERENCE DOCUMENT, IT CONTAINS INFORMATION ON REGULATORY FEATURES OF THE 208 PROGRAMS, LEGAL BACKGROUND FOR WATER QUALITY PLANNING, A DESCRIPTION OF CITIZEN PARTICIPATION TECHNIQUES AND A SUMMARY OF THE CASE STUDIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007818

PUBLICATION DATE: MAY 81

TITLE: INSTITUTIONAL BARRIERS TO WATER QUALITY PLANNING AND MANAGEMENT IN THE SOUTHEAST: VOLUME III - ANNOTATED BIBLIOGRAPHY.

PERSONAL AUTHOR: BOWEN, GEORGE E.; GANGAWARE, TIMOTHY

DESCRIPTOR: *BIBLIOGRAPHIES; INSTITUTIONAL BARRIERS; *MANAGEMENT; *PLANNING; PUBLICATIONS; *REFERENCE MATERIALS; *RESEARCH REPORTS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 48P. PB82-153552; PRICE CODE: PC A03/MF A01

ABSTRACT: THIS VOLUME OF THE REPORT, THE ANNOTATED BIBLIOGRAPHY, WAS INTENDED TO BE A BASIC RERERENCE SOURCE FOR PERSONS ENGAGED IN WATER QUALITY PLANNING, MANAGEMENT, AND RESEARCH. THE ANNOTATIONS ARE DIVIDED INTO SIX BASIC CATEGORIES: BOOKS, PERIODICALS, GOVERNMENT PUBLICATIONS, CONFERENCE PROCEEDINGS, WATER RESOURCE CENTER REPORTS AND OTHERS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007819

PUBLICATION DATE: DEC 80

TITLE: CLEAN LAKES PROGRAM GUIDANCE MANUAL.

DESCRIPTOR: *CLEAN LAKES PROGRAM; *LAKES; *MANUALS; *NATURAL RESOURCES; PLANNING; *POLICY FORMATION; *PROGRAM DESCRIPTIONS; *STATE PROGRAMS; *TECHNIQUES; *TECHNOLOGY; *WATER QUALITY; *WATERSHEDS

DESCRIPTIVE NOTE: 249P. PB82-140815; PRICE CODE: PC A11/MF A01

ABSTRACT: THIS MANUAL HAS BEEN PREPARED TO GUIDE THE STATES IN DEVELOPING THEIR OWN LAKE RESTORATION AND PROTECTION PROGRAMS, IN OBTAINING FEDERAL CLEAN LAKES PROGRAM ASSISTANCE, AND CONDUCTING LAKE PROJECTS. POLICY, PROCEDURES, AND TECHNOLOGY ARE DISCUSSED, MAKING THIS MANUAL USEFUL TO STATE ENVIRONMENTAL AND NATURAL RESOURCES AGENCY OFFICIALS, WHETHER THEIR RESPONSIBILITIES ARE TECHNICAL OR ADMINISTRATIVE. GOVERNMENTAL AGENCIES WHICH CARRY OUT LAKE PROJECTS UNDER SUBAGREEMENTS WITH THE STATE, OR WATERSHED, LAKE ASSOCIATIONS OR CITIZEN GROUPS WHICH INITIATE A LAKE PROJECT WILL ALSO FIND THE MANUAL USEFUL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007820

PUBLICATION DATE: NOV 81

TITLE: SITE SELECTION METHODOLOGY FOR THE LAND TREATMENT OF WASTEWATER.

PERSONAL AUTHOR: RYAN, JOHN R.; LOEHR, RAYMOND C.

DESCRIPTOR: *COSTS; COST EFFECTIVENESS; *DATA ANALYSIS; *DESIGN; *FACILITIES; HYDROGEOLOGY; LAND APPLICATION; *LAND TREATMENT; *LAND USE; *SITE SELECTION; SOILS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 79P. AD-A108 636/2; PRICE CODE: PC A05/MF A01

ABSTRACT: A METHOD IS PRESENTED THAT COVERS FACETS OF SITE SELECTION FROM PRELIMINARY SCREENING TO FIELD DATA ACQUISITION FOR THE PREPARATION OF A FINAL DESIGN FOR A LAND TREATMENT SYSTEM. THE BASIC ASSUMPTION UNDERLYING THE METHOD IS AN APPROACH TO SITE SELECTION IN WHICH THE ENTIRE STUDY AREA IS INVESTIGATED FOR POTENTIAL SITES WHILE CONSIDERING THE WHOLE SPECTRUM OF LAND TREATMENT PROCESSES. A COST-EFFECTIVENESS EVALUATION OF WASTE TREATMENT ALTERNATIVES AND SITE CANDIDATES IS DEVELOPED. THE MOST COST-EFFECTIVE SITE CANDIDATE IS THEN SELECTED FOR INTENSIVE FIELD INVESTIGATIONS. DATA ACQUIRED IN THE FIELD INVESTIGATIONS DETERMINE THE DESIGN REQUIREMENTS OF THE LAND TREATMENT SYSTEM.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007821

PUBLICATION DATE: 80

TITLE: THE OPERATION AND MAINTENANCE OF SMALL SEWAGE WORKS.

DESCRIPTOR: ACTIVATED SLUDGE; *CESSPOOLS; *HANDBOOKS; *MAINTENANCE; MANAGEMENT; *OPERATIONS (WASTEWATER); *SAND FILTERS; *SEPTIC TANKS; *SEWAGE TREATMENT; SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 72P. PB82-151481; PRICE CODE: PC E04/MF E04

ABSTRACT: THE REPORT IS A HANDBOOK FOR THE OPERATION AND MAINTENANCE OF SMALL SEWAGE TREATMENT SYSTEMS. SOME OF THE TREATMENT SYSTEMS COVERED ARE: CESSPOOLS, SEPTIC TANKS, ACTIVATED SLUDGE PROCESS, AND SAND FILTERS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007822

PUBLICATION DATE: DEC 81

TITLE: ACTIVATED SLUDGE TREATMENT. 1978-1981 (CITATIONS FROM THE INFORMATION RETRIEVAL, LTD. DATA BASE.)

DESCRIPTOR: *ACTIVATED SLUDGE; *BIBLIOGRAPHIES; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PROCESS DESIGN; *RESEARCH REPORTS; SEWAGE TREATMENT; SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 268P. PB82-859349; PRICE CODE: PC N01/MF N01

ABSTRACT: REPORTS ARE CITED WHICH DISCUSS VARIOUS ASPECTS OF THE ACTIVATED SLUDGE PROCESS IN TREATING INDUSTRIAL AND DOMESTIC WASTE. INCLUDED ARE CITATIONS DEALING WITH APPARATUS DESIGN, PARAMETERS FOR EFFECTIVENESS, AND ORGANISMS UTILIZED IN THE VARIOUS PROCESSES. PERFORMANCE EVALUATIONS AND APPLICATIONS OF THE VARIOUS PROCESSES FOR THE PURIFICATION AND REMOVAL OF UNWANTED SUBSTANCES FROM SEWAGE AND WASTEWATER ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 312 CITATIONS, 61 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007823

PUBLICATION DATE: MAY 81

TITLE: INTEGRATION OF PROCESSES FOR WASTEWATER RESIDUALS MANAGEMENT.

PERSONAL AUTHOR: DICK, RICHARD I.; HASIT, YAKIR

DESCRIPTOR: BIBLIOGRAPHIES; *COSTS; *DESIGN; *ECONOMIC FACTORS; ENERGY; *MANAGEMENT; *MODELS; MUNICIPALITIES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PROCESSES; *RESEARCH REPORTS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 184P. PB82-147992; PRICE CODE: PC A09/MF A01

ABSTRACT: THE MANNER IN WHICH MUNICIPAL WASTEWATER TREATMENT PLANT SLUDGE MANAGEMENT PROCESSES INTERACT WITH EACH OTHER AND WITH WASTEWATER TREATMENT PROCESSES IS EXAMINED. THE RESEARCH INCLUDES EXPERIMENTAL WORK TO DEVELOP DATA ON THE EFFECT OF WASTEWATER AND SLUDGE PROCESS DESIGN AND OPERATIONAL PROCEDURES ON THE PHYSICAL PROPERTIES OF SLUDGES. THESE OBSERVATIONS ARE INCORPORATED INTO MODELS OF PROCESS PERFORMANCE. THE ECONOMIC EFFECTS OF SLUDGE MANAGEMENT ARE DISCUSSED IN REGARD TO GRAVITY THICKENERS, MEAN CELL RESIDENCE TIME OF THE ACTIVATED SLUDGE PROCESS, SEDIMENTATION TANK SIZE, INCINERATION, OCEAN DISPOSAL, MODE OF TRANSPORTATION, AND ELECTRON RADIATION. ALSO INCLUDED ARE DESCRIPTIONS OF PROCESS PERFORMANCE MODELS, COST MODELS, AND OPTIMAL PROCESS INTEGRATION APPLICATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007824

PUBLICATION DATE: DEC 81

TITLE: MARINE DISPOSAL OF RADIOACTIVE WASTES. 1978-1981 (CITATIONS FROM THE INFORMATION RETRIEVAL, LTD. DATA BASE.)

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *BIBLIOGRAPHIES; *GROUNDWATER; *LIQUID WASTES; *OCEANS; *RADIOACTIVE WASTES; *RESEARCH REPORTS; SOLID WASTES; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 166P. PB82-859307; PRICE CODE: PC N01/MF N01

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE DISPOSAL OF HIGH AND LOW LEVEL LIQUID AND SOLID RADIOACTIVE WASTES IN THE SEA AND GROUND WATER. EMPHASIS IS ON THE DISPOSAL OF THE WASTES AT SEA. DISPOSAL UNDER AND ON THE SEA BED IS EXAMINED, AND THE MIGRATION AND CONCENTRATION OF RADIOACTIVE WASTES IN SEA WATER AND ACQUATIC LIFE ARE INCLUDED. METHODOLOGY FOR MEASURING RADIOACTIVITY IS CONSIDERED. (CONTAINS 130 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007825

PUBLICATION DATE: SEP 81

TITLE: VEGETATION MANAGEMENT FOR LAND TREATMENT OF MUNICIPAL WASTEWATER.

PERSONAL AUTHOR: D'LTRI, FRANK M.

DESCRIPTOR: *BIOLOGY; *BOTANY; *CONFERENCE PROCEEDINGS; *IRRIGATION; *LAND APPLICATION; *LAND TREATMENT; *MANAGEMENT; *MUNICIPALITIES; *OVERLAND FLOW; PLANT DISEASE; *RESEARCH REPORTS; *VEGETATION; *WASTE DISPOSAL; WASTES; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 176P. PRICE CODE: PC A09/MF A01; PB82-164716

ABSTRACT: PRESENTED ARE THE PROCEEDINGS OF A CONFERENCE/WORKSHOP HELD AT MICHIGAN STATE UNIVERSITY IN 1981 TO REVIEW, DISCUSS, AND RECOMMEND VEGETATION MANAGEMENT STRATEGIES AND CULTIVARS THAT CAN BE USED EFFECTIVELY IN SLOW RATE AND OVERLAND FLOW MUNICIPAL LAND TREATMENT SYSTEMS IN THE NORTH CENTRAL REGION OF THE UNITED STATES. ELEVEN RESEARCH PAPERS WERE PRESENTED ON VARIOUS ASPECTS OF VEGETATION SELECTION AND MANAGEMENT SUCH AS IRRIGATION SYSTEM DESIGN, WASTEWATER CROP MANAGEMENT, TREE AND OLD FIELD RESPONSES TO WASTEWATER IRRIGATION, AND PLANT DISEASES ASSOCIATED WITH MUNICIPAL WASTEWATER IRRIGATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007826

PUBLICATION DATE: FEB 82

TITLE: PHOSPHORUS REMOVAL IN SEWAGE TREATMENT SYSTEMS. 1977-JANUARY, 1982. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *INDUSTRY; *LAND APPLICATION; *OPERATIONS (WASTEWATER); *PHOSPHOROUS; *PHOSPHOROUS REMOVAL; *SEWAGE; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WASTES; WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 158P. PRICE CODE: PC N01/MF N01; PB82-804337

ABSTRACT: PRESENTED ARE 151 CITATIONS COVERING THE REMOVAL OF PHOSPHOROUS IN SEWAGE TREATMENT SYSTEMS. STUDIES ARE INCLUDED ON PRECIPITATION, SEWAGE MICROBIOLOGY, TERTIARY SEWAGE TECHNIQUES, SYSTEM DESIGNS, OXYGENATION, AND COMBINED INDUSTRIAL-SEWAGE PROCESSOR. LAND DISPOSAL METHODS ARE CITED IF THEY INCLUDED THE FATE OF THE PHOSPHOROUS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007827

PUBLICATION DATE: JAN 82

TITLE: OIL SPILL REMOVAL: DISPERSANTS, BOOMS, AND SKIMMERS. 1978-JANUARY, 1982 (CITATIONS FROM THE INFORMATION RETRIEVAL, LTD. DATA BASE.)

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; CHEMICALS; *EQUIPMENT; *ENVIRONMENTAL IMPACT; *OIL POLLUTION CONTROL; *OIL SPILLS; *OIL SPILL REMOVAL; *TECHNOLOGY; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 78P. PRICE CODE: PC N01/MF N01; PB82-859125

ABSTRACT: PRESENTED ARE 64 FULLY INDEXED CITATIONS ON THE TECHNIQUES AVAILABLE FOR THE REMOVAL OF OIL FOLLOWING MAJOR SPILLS. DISCUSSED ARE CHEMICAL DISPERSANTS, GELLING AGENTS, FOAM PLASTICS, BOOMS, SKIMMERS AND BURNING. ALSO CONSIDERED ARE SPECIFIC OIL SPILLS AND THE ENVIRONMENTAL IMPACTS OF OIL SPILLS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007828

PUBLICATION DATE: MAR 82

TITLE: OIL WATER SEPARATORS. 1973-NOVEMBER, 1981 (CITATIONS FROM THE AMERICAN PETROLEUM INSTITUTE DATA BASE.)

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *EQUIPMENT; FIELD TESTS; LABORATORY TESTS; *OIL; *OIL POLLUTION CONTROL; OIL RECOVERY; *OIL SPILLS; *OIL WATER SEPARATORS; PETROLEUM INDUSTRY; *RESEARCH; *TECHNOLOGY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 189P. PRICE CODE: PC NO1MF/ NO1; PB82-805680

ABSTRACT: PRESENTED ARE 183 CITATIONS COVERING RESEARCH FOR OIL POLLUTION CONTROL DEVICES. EQUIPMENT STUDIED INCLUDES COALESCERS, FILTERS, SKIMMERS, SCRUBBERS, ABSORBERS, CENTRIFUGES, AND SWEEPS. ALSO DESCRIBED ARE OIL RECOVERY FROM OIL SPILLS, SEPARATION FROM BILGE AND BALLAST WATER AND OIL REMOVAL FROM PETROLEUM REFINERY EFFLUENTS. THE OPERATION, TESTING, AND PERFORMANCE OF EQUIPMENT ON FIELD AND LABORATORY SITUATIONS ARE REPORTED. (THIS DOCUMENT SUPERCEDES EW005107).

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007829

PUBLICATION DATE: MAR 82

TITLE: OIL POLLUTION DETECTION AND SENSING. 1976-JANUARY, 1982. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *ABSTRACTS; *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; *CHEMICAL ANALYSIS; *INDUSTRIAL WASTES; MONITORING; *OCEANOGRAPHY; *OIL; *OIL POLLUTION CONTROL; *OIL SPILLS; REMOTE SENSING; *RESEARCH; *SAMPLING; WASTE DISPOSAL; WASTES; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 232P. PRICE CODE: PC NO1/MF NO1; PB82-805797

ABSTRACT: PRESENTED ARE 226 CITATIONS OF RESEARCH ON THE SAMPLING, DETECTION, AND CHEMICAL ANALYSIS OF OIL IN WATER. INCLUDED ARE STUDIES ON REMOTE SENSING USING RADAR, OCEAN WAVE DAMPING, AND INFRA-RED DETECTION. THE CLASSIFICATION, PATTERN RECOGNITION, LUMINESCENCE, GAS CHROMATOGRAPHY, AND NEUTRON ACTIVATION ANALYSIS OF OILS ARE REPORTED. THE MAJORITY OF THE CITATIONS CONCERN OIL SPILLS, BUT STUDIES ON OIL WASTE, INDUSTRIAL WASTES, BILGE WATER AND SEWAGE ARE COVERED. (THIS DOCUMENT SUPERCEDES EW006635).

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007830

PUBLICATION DATE: MAR 82

TITLE: SHIPBOARD SEWAGE TREATMENT. 1964-JANUARY, 1982 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *ABSTRACTS; AERATION; *ANNOTATED BIBLIOGRAPHIES; CHLORINATION; *DESIGN; INCINERATION; *OCEANS; *OPERATIONS (WASTEWATER); *RESEARCH; SEWAGE; *SEWAGE TREATMENT; *SHIPS; *WASTE DISPOSAL; WASTES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 116P. PRICE CODE: PC NO1/MF NO1; PB82-805 839

ABSTRACT: PRESENTED ARE 114 CITATIONS (3 OF WHCIH ARE NEW ENTRIES TO THE PREVIOUS EDITION) ON NEW AND EFFECTIVE DESIGNS OF SHIPBORNE SEWAGE TREATMENT SYSTEMS. METHODS DISCUSSED INCLUDE CHLORINATION, AERATION, BIOLOGICAL TREATMENT, INCINERATION, CHEMICAL REMOVAL, AND ACTIVATED CARBON. SHIPBOARD INCINERATION AND SEA DISPOSAL ARE ALSO DISCUSSED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007831

PUBLICATION DATE: APR 81

TITLE: BEST MANAGEMENT PRACTICES IMPLEMENTATION - ROCHESTER, NEW YORK.

PERSONAL AUTHOR: MURPHY, CORNELIUS B.; AND OTHERS

DESCRIPTOR: *BEST MANAGEMENT PRACTICES; *CASE STUDIES; *COST EFFECTIVENESS; *MANAGEMENT; *MUNICIPALITIES; NEW YORK; *OPERATIONS (WASTEWATER); *PLANNING; PROGRAM DEVELOPMENT; *SEWERS; *STORMWATER; *SURFACE RUNOFF; *WASTEWATER COLLECTION; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 244P. PRICE CODE: PC A11/MF 01; PB82-171067

ABSTRACT: PRESENTED ARE THE RESULTS OF A STUDY WHICH OUTLINED AND DEFINED EFFECTIVE BMP MEASURES AS A PARTIAL SOLUTION TO STORMWATER-RUNOFF-INDUCED RECEIVING WATER QUALITY IMPAIRMENT FOR THE CITY OF ROCHESTER, NEW YORK. A METHODOLOGY OF APPROACH IS ADVANCED AND PRELIMINARY COST/BENEFIT RELATIONSHIPS ARE ESTABLISHED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007833

PUBLICATION DATE: JUN 82

TITLE: WATER QUALITY MONITORING AND MODELING WORKSHOP:

PROCEEDINGS.

PERSONAL AUTHOR: CROSSWHITE, WILLIAM M.; MEEK, JAMES

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CONFERENCE PROCEEDINGS; *ECONOMICS; EVALUATION; *MODELS; *MONITORING; *PROGRAM EVALUATION; *STATE-OF-THE-ART REVIEWS; *SYSTEMS APPROACH; *SYSTEMS ANALYSIS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; WATER TREATMENT; *WATER QUALITY; *WORKSHOPS

DESCRIPTIVE NOTE: 244P. PRICE CODE: PC A11/MF A01; PB82-168394

ABSTRACT: EXAMINED ARE THE STATE-OF-THE-ART IN WATER QUALITY MONITORING AND MODELING. THE NEEDS OF USER GROUPS AND THE RELATIONSHIP BETWEEN MODELING AND MONITORING IS EXPLORED. THE LINKAGE AMONG ECONOMICS, WATER QUALITY MONITORING, MODELING, AND EVALUATION IS INVESTIGATED. A SYSTEMS APPROACH, USING MODELS AND MONITORING, IS PRESENTED AS A USEFUL TOOL IN DESIGNING WATER QUALITY CONTROL PROJECTS, DETERMINING POLLUTION ABATEMENT EFFECTS, QUANTIFYING THE IMPACTS OF ALTERNATIVE STRATEGIES AND MANAGEMENT SYSTEMS, AND EVALUATING THE EFFECTIVENESS OF POLLUTION CONTROL MEASURES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007835

PUBLICATION DATE: FEB 82

TITLE: WATER POLLUTION ECONOMICS. OCTOBER, 1980-JANUARY, 1982. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *ECONOMIC IMPACT; *ECONOMICS; *INDUSTRY; *MANAGEMENT; *PLANNING; POLLUTION; *POLLUTION CONTROL; URBAN ENVIRONMENT; *WATER POLLUTION CONTROL; WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 72P. PRICE CODE: PC N01/MF N01; PB82-804881

ABSTRACT: PRESENTED ARE 65 CITATIONS (ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION) ON THE ECONOMICS OF WATER POLLUTION CONTROL AND MANAGEMENT. COVERED ARE THE ECONOMICS INVOLVED WITH INDUSTRIAL CLEANUP, GOVERNMENT PLANNING, RESOURCE MANAGEMENT, AND URBAN PLANNING. THE CITATIONS EXCLUDE SEWAGE TREATMENT ECONOMICS, BUT INCLUDE THE ECONOMIC IMPACTS OF POLLUTION AND ITS CONTROL ON SPECIFIC INDUSTRIES, REGIONS, OR THE ECONOMY AS A WHOLE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007836

PUBLICATION DATE: FEB 82

TITLE: WATER POLLUTION ECONOMICS. SEPTEMBER, 1977-SEPTEMBER, 1980. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *ECONOMIC IMPACT; *ECONOMICS; *INDUSTRY; *MANAGEMENT; *PLANNING; POLLUTION; *POLLUTION CONTROL; *RESEARCH; URBAN ENVIRONMENT; *WATER POLLUTION CONTROL; WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 311P. PRICE CODE: PC N01/MF N01; PB82-804873

ABSTRACT: PRESENTED ARE 304 CITATIONS (NONE OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION) ON THE ECONOMICS OF WATER POLLUTION CONTROL AND MANAGEMENT. COVERED ARE THE ECONOMICS INVOLVED WITH INDUSTRIAL CLEAN-UP, GOVERNMENT PLANNING, RESOURCE MANAGEMENT AND URBAN PLANNING. THE CITATIONS EXCLUDE SEWAGE TREATMENT ECONOMICS, BUT INCLUDE THE ECONOMIC IMPACTS OF POLLUTION AND ITS CONTROL ON SPECIFIC INDUSTRIES, REGIONS, OR THE ECONOMY AS A WHOLE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007837

PUBLICATION DATE: FEB 82

TITLE: SEWAGE AND ORGANIC WASTE IRRIGATION. JULY, 1977-JANUARY, 1982. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *ECOLOGY; *ENVIRONMENTAL INFLUENCES; *GROUNDWATER; *IRRIGATION; *SEWAGE; *SLUDGE DISPOSAL; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WASTES (ORGANIC); WATER QUALITY; *WATER RESOURCES; *WATER REUSE

DESCRIPTIVE NOTE: 186P. PRICE CODE: PC N01/MF N01; PB82-804675

ABSTRACT: PRESENTED ARE 178 CITATIONS (28 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION) ON THE VARIOUS ASPECTS OF USING SEWAGE AND ORGANIC FORM WASTES FOR IRRIGATION, FERTILIZATION OR GROUNDWATER RECHARGE. TOPICS COVERED INCLUDE FEASIBILITY STUDIES, WATER RECLAMATION IN ARID REGIONS, ALLEVIATING SLUDGE DISPOSAL PROBLEMS, AND ECOLOGICAL EFFECTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007838

PUBLICATION DATE: FEB 82

TITLE: SEWAGE AND ORGANIC WASTE IRRIGATION. NOVEMBER,

1979-JANUARY, 1982. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *COSTS; *DESIGN; ENGINEERING; *FERTILIZER; GLOBAL APPROACH; *GROUNDWATER; *IRRIGATION; NUTRIENTS; *RESEARCH; *SEWAGE; SLUDGE DISPOSAL; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WASTES (ORGANIC); WATER POLLUTION CONTROL; WORLD PROBLEMS

DESCRIPTIVE NOTE: 100P. PRICE CODE: PC N01/MF N01; PB82-804683

ABSTRACT: PRESENTED ARE 95 CITATIONS (24 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION) FROM WORLDWIDE RESEARCH COVERING THE USE OF ORGANIC FORM WASTES FOR IRRIGATION, FERTILIZATION, AND GROUDWATER RECHARGE. TOPICS INCLUDE DESIGN AND COSTS OF IRRIGATION SYSTEMS FOR WASTEWATER, ALLEVIATING SLUDGE DISPOSAL PROBLEMS. NUTRIENT LEVELS IN GROUNDWATER AFTER SEWAGE IRRIGATION, CONSTRAINTS, AND FEASIBILITY STUDIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007839

PUBLICATION DATE: FEB 82

TITLE: BIOINDICATORS OF POLLUTION. NOVEMBER, 1977-FEBRUARY, 1982. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: ABSTRACTS; *AIR POLLUTION; *ANNOTATED BIBLIOGRAPHIES; *BIOINDICATORS; *BIOLOGY; *MEASUREMENT; *MEASUREMENT TECHNIQUES; *MICROBIOLOGY; *POLLUTION; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY; *ZOOLOGY

DESCRIPTIVE NOTE: 204P. PRICE CODE: PC N01/MF N01; PB82-804691

ABSTRACT: COMPILED ARE 195 CITATIONS RELATED TO THE USE OF MICROORGANISMS, ANIMALS, PLANTS, AND FISHES TO DETECT AIR AND WATER POLLUTION. ORGANISMS DISCUSSED ARE ALGAE, BACTERIA, AQUATIC PLANTS, OYSTERS, SNAILS, CLAMS, INSECTS, ANNELIDA, AMPHIBIANS, BEAVER, AND FUNGI.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007840

PUBLICATION DATE: FEB 82

TITLE: AUTOMATIC ACQUISITION OF WATER QUALITY DATA. 1978-JANUARY, 1982. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *DATA COLLECTION; *INSTRUMENTATION; *MEASUREMENT; *MEASUREMENT TECHNIQUES; *MONITORING; POLLUTION; *REMOTE SENSING; *SAMPLING; *WATER QUALITY

DESCRIPTIVE NOTE: 306P. PRICE CODE: PC N01/MF N01; PB82-804790

ABSTRACT: COMPILED ARE 297 CITATIONS ON TECHNIQUES USED TO OBTAIN CONTINUOUS WATER QUALITY DATA, WITH EMPHASIS ON BIOLOGICAL AND SATELLITE REMOTE SENSING TECHNIQUES. MONITOR DESIGN AND PERFORMANCE, GENERAL SYSTEMS MANAGEMENT, AND PLANNING STUDIES ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007841

PUBLICATION DATE: SEP 81

TITLE: REFERENCE HANDBOOK FOR USE WITH THE PRINCIPLES, STANDARDS, AND PROCEDURES FOR WATER RESOURCES PLANNING (LEVEL C).

DESCRIPTOR: *DEVELOPMENT; *EVALUATION; *HANDBOOKS; *MANAGEMENT; *PLANNING; *REFERENCE MATERIALS; *RESOURCE DEVELOPMENT; STANDARDS; *WATER SUPPLY; *WATER RESOURCES

DESCRIPTIVE NOTE: 95P. PRICE CODE: PC A05/MF A01; PB82-160813

ABSTRACT: PRESENTED IS INFORMATION COMPILED BY THE WATER RESOURCES COUNCIL AND ITS MEMBER AGENCIES TO ASSIST PLANNERS IN FORMULATING AND EVALUATING WATER RESOURCES MANAGEMENT AND DEVELOPMENT PLANS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007842

PUBLICATION DATE: SEP 81

TITLE: TREATMENT TECHNIQUES FOR CONTROLLING TRIHALOMETHANES IN DRINKING WATER.

PERSONAL AUTHOR: SYMONS, JAMES M.; AND OTHERS

DESCRIPTOR: *DRINKING WATER; *FEDERAL PROGRAMS; *LITERATURE REVIEWS; POTABLE WATER; *RESEARCH; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *TRIHALOMETHANES; *WATER POLLUTION CONTROL; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 301P. PRICE CODE: PC A14/MF A01; PB82-163197

ABSTRACT: PRESENTED IS AN ATTEMPT TO COMPILE INFORMATION DEVELOPED FROM 1975-1981 ON ALL ASPECTS OF TRIHALOMETHANES AS THEY RELATE TO DRINKING WATER. SECTION I SUMMARIZES, WITH REFERENCES TO THE PRIMARY LITERATURE, THE DISCOVERY OF THE TRIHALOMETHANE PROBLEM, HEALTH, AND REGULATORY INFORMATION. SECTIONS II-V SUMMARIZE THE LITERATURE REGARDING KEY BACKGROUND INFORMATION NECESSARY FOR AN UNDERSTANDING OF APPROACHES TO INITIATING AND EVALUATING CONTROL MEASURES.

SECTIONS VI-XI INCLUDE SOME PREVIOUSLY UNPUBLISHED IN-HOUSE USEPA-DRINKING WATER RESEARCH DIVISION RESEARCH RESULTS AND SELECTED REFERENCES TO THE PRIMARY LITERATURE THAT ARE SUFFICIENT TO DESCRIBE THE STATE-OF-THE-ART KNOWLEDGE OF TRIHALOMETHANE TREATMENT TECHNIQUES, BACTERIOLOGIC CONSIDERATIONS, AND THE ECONOMIC IMPACT OF TRIHALOMETHANE CONTROL STRATEGIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007843

PUBLICATION DATE: OCT 81

TITLE: ORGANIC REMOVAL CAPABILITIES OF COMMERCIALLY AVAILABLE HOME WATER TREATMENT UNITS UTILIZING ACTIVATED CARBON: PHASE 3--SUPPLEMENTAL DATA.

PERSONAL AUTHOR: PERRY, DONALD L.; AND OTHERS

DESCRIPTOR: *ACTIVATED CARBON; *ALTERNATIVE TECHNOLOGY; *DRINKING WATER; *EQUIPMENT; *HOME UNITS; *MICROBIOLOGY; *ORGANICS; *POTABLE WATER; *RESEARCH REPORTS; WATER QUALITY; WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 105P. PRICE CODE: PC A06/MF A01; PB82-159658

ABSTRACT: PRESENTED ARE THE RESULTS OF A THREE YEAR STUDY WHICH EXAMINED ORGANICS REDUCTION AND MICROBIOLOGICAL FACTORS ASSOCIATED WITH COMMERCIALLY AVAILABLE HOME WATER TREATMENT UNITS. TEN SELECTED ACTIVATED CARBON UNITS WERE TESTED AGAINST BOTH GROUND AND SURFACE WATER SPIKED WITH ORGANICS SUCH AS CARBON TETRACHLORIDE, TRICHLOROETHYLENE, AND TETRACHLOROETHYLENE AND 1, 1, 1-TRICHLOROETHANE. RESULTS OF FOUR FIELD STUDIES CONDUCTED IN MIAMI, FLORIDA; PICO RIVERA, CALIFORNIA; ATLANTA, GEORGIA; AND DETROIT, MICHIGAN ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007844

PUBLICATION DATE: MAY 82

TITLE: LEAK LOCATION ENTERS COMPUTER AGE.

PERSONAL AUTHOR: GREELEY, S. DOUGLAS

DESCRIPTOR: *CASE STUDIES; *COMPUTER APPLICATIONS; *COMPUTERS; DROUGHT; *EQUIPMENT; *LEAKS; MAINTENANCE; *NEW YORK; *SOUND DETECTION; *TECHNOLOGY; *WATER LOSS; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 14-18P.

ABSTRACT: THIS ARTICLE DESCRIBES HOW NEW YORK CITY TURNED TO A COMPUTERIZED LEAK DETECTION PATROL TO STOP WASTAGE OF

VALUABLE WATER DURING A RECENT DROUGHT. USING THE PORTABLE DETECK-A-LEAK SOUND UNIT AND THE VAN-MOUNTED LOCATE-A-LEAK COMPUTER, THE CITY FOUND AND FIXED SOME 43 MGD IN LEAKS.

AVAILABILITY: AMERICAN CITY & COUNTY V97 N5

IRIS ACCESSION NUMBER: EW007858

PUBLICATION DATE: MAY 82

TITLE: TENURE CONTRIBUTES TO UTILITY'S SUCCESS.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *CASE STUDIES; *DROUGHT; *FACILITIES; *MANAGEMENT; *MASSACHUSETTS; *OPERATIONS (WATER); UTILITIES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 12P.

ABSTRACT: THIS ARTICLE EXAMINES THE MANAGEMENT AND OPERATIONS OF THE SALEM/BEVERLY (MASSACHUSETTS) WATER SUPPLY BOARD. ATTENTION IS FOCUSED ON THE DROUGHT MANAGEMENT STRATEGY OF THE BOARD, THEIR PERSONNEL AND MANAGEMENT STABILITY, AND THE WATER TREATMENT FACILITIES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N5

IRIS ACCESSION NUMBER: EW007859

PUBLICATION DATE: MAY 82

TITLE: DETROIT-STYLE CSO STUDIES.

PERSONAL AUTHOR: GRAHAM, M. J.

DESCRIPTOR: *COMBINED SEWERS; *COMPUTERS; DETROIT RIVER; EQUIPMENT; FACILITIES; *MICHIGAN; *MODELS; POLLUTION CONTROL; RESEARCH REPORTS; ROUGE RIVER; *SEWERS; *STORM SEWERS; *WASTEWATER COLLECTION; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 22-26P.

ABSTRACT: THIS ARTICLE REPORTS ON A COMPREHENSIVE COMBINED SEWER OVERFLOW STUDY CONDUCTED BY THE DETROIT WATER AND SEWERAGE DEPARTMENT. THE STUDY PRODUCED DATA WHICH WERE USED TO CALIBRATE AND VERIFY A NUMBER OF INTERACTING COMPUTER MODELS. THESE MODELS ASSESSED POTENTIAL IMPROVEMENTS IN WATER QUALITY IN BOTH THE ROUGE AND DETROIT RIVERS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N5

IRIS ACCESSION NUMBER: EW007860

PUBLICATION DATE: MAY 82

TITLE: SAN DIEGO SOLVES A PIPE PROBLEM.

DESCRIPTOR: *CASE STUDIES; EQUIPMENT; *FACILITIES; *INTERCEPTORS; *MAINTENANCE (PREVENTATIVE); *PERFORMANCE EVALUATION; *PIPES; *SEWERS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THIS ARTICLE REPORTS ON A NEW INTERCEPTOR THAT FIGHTS OFF SULPHURIC ACID WHICH IS FORMED BY OXIDATION IN A WASTEWATER STREAM. THE INTERCEPTOR INCLUDES 114 INCH DIAMETER REINFORCED CONCRETE PIPES PROTECTED BY THE T-LOCK POLYVINYL CHLORIDE LINING SYSTEM.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N5

IRIS ACCESSION NUMBER: EW007861

PUBLICATION DATE: MAY 82

TITLE: SEWER MAINTENANCE AND REHAB OPTIONS.

PERSONAL AUTHOR: ANDREWS, PAUL L.; YONKER, STEPHEN A.

DESCRIPTOR: *CLEANING; *EQUIPMENT; *MAINTENANCE; *MAINTENANCE (PREVENTATIVE); MUNICIPALITIES; *PERFORMANCE EVALUATION; *PIPES; *REHABILITATION; *SEWERS; *TECHNOLOGY; WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 38-42,46P.

ABSTRACT: THIS ARTICLE PRESENTS A COMPREHENSIVE REVIEW OF SEWER MAINTENANCE AND REHABILITATION. THE VARIOUS CAUSES OF SEWER DETERIORATION ARE DISCUSSED AND SPECIFIC ATTENTION IS FOCUSED ON REPAIR AND REHABILITATION TECHNOLOGY ADDRESSING THESE CAUSES. ALSO DISCUSSED ARE THE VARIOUS METHODS AND DEVICES AVAILABLE FOR SEWER CLEANING AND SEWER REHABILITATION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N5

IRIS ACCESSION NUMBER: EW007862

PUBLICATION DATE: MAY 82

TITLE: POLYMER PLAYS PLANT IMPROVEMENT ROLE.

PERSONAL AUTHOR: VANCOTT, WHITFIELD; MOORE, JAMES F.

DESCRIPTOR: *CASE STUDIES; *COST EFFECTIVENESS; EQUIPMENT; *FACILITIES; MANAGEMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *PHOSPHATES; *POLYMERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 48-50P.

ABSTRACT: THIS ARTICLE EXAMINES THE OPERATIONS OF A TOLEDO, OHIO WASTEWATER TREATMENT PLANT WITH SPECIFIC ATTENTION FOCUSED ON THE VARIOUS METHODS OF PHOSPHATE REDUCTION. RESULTS SHOW THAT ONE ANIONIC POLYMER, HERCULES INCORPORATED'S HERCOFLOC 1123 GAMMA GEL, WAS SAFER TO HANDLE AND MORE COST-EFFECTIVE.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N5

IRIS ACCESSION NUMBER: EW007863

PUBLICATION DATE: MAY 82

TITLE: STATISTICAL COST FUNCTION FOR WATER MAINS.

PERSONAL AUTHOR: FIRESTONE, BRUCE M.

DESCRIPTOR: *COST EFFECTIVENESS; COSTS; *MATHEMATICAL MODELS; *PIPES (WATER); *PLANNING; *STATISTICAL APPLICATIONS; *STATISTICS; *WATER SUPPLY; *WATER DISTRIBUTION; *WATER MAINS

DESCRIPTIVE NOTE: 50-52P.

ABSTRACT: THIS ARTICLE DISCUSSES VARIOUS STATISTICAL ANALYSIS STRATEGIES THAT CAN BE APPLIED TO PLANNING THE INSTALLATION OF WATER MAINS. VARIOUS STATISTICAL FUNCTIONS ARE PROVIDED WHICH RELATE COSTS AND FLOW VOLUMES TO PLANNING AND PIPE SELECTION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT V129 N5

IRIS ACCESSION NUMBER: EW007865

PUBLICATION DATE: APR 82

TITLE: ANALYTICAL CHEMISTRY FUNDAMENTAL REVIEWS - 1982.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; *CHEMISTRY; *EQUIPMENT; *INSTRUMENTATION; *LABORATORY TECHNIQUES; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS

DESCRIPTIVE NOTE: 1R-428RP.

ABSTRACT: THIS ISSUE CONTAINS A COLLECTION OF 30 REVIEWS OF MAJOR TOPICS IN ANALYTICAL CHEMISTRY AND RELATED RESEARCH IN OTHER FIELDS. TOPICS DISCUSSED INCLUDE: ELECTROCHEMISTRY, CHROMATOGRAPHY, SPECTROMETRY, CHEMOMETRICS, FUNCTIONAL GROUP ANALYSIS, KINETIC DETERMINATIONS, NUCLEONICS, ELECTRON SPIN RESONANCE, THERMAL ANALYSIS, TITRATION TECHNIQUES, AND X-RAY DIFFRACTION.

AVAILABILITY: ANALYTICAL CHEMISTRY, V54 N5

IRIS ACCESSION NUMBER: EW007866

PUBLICATION DATE: MAR 82

TITLE: SEWAGE TREATMENT COSTS AND ECONOMICS. 1979-FEBRUARY, 1982 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSTRUCTION; *COSTS; *ECONOMIC FACTORS; EFFLUENTS; *OPERATIONS (WASTEWATER);

*RESEARCH REPORTS; SEWERS; SLUDGE DISPOSAL; TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 182P. PB82-806084; PRICE CODE: PC N01/MF N01

ABSTRACT: THE CITED REPORTS OF FEDERALLY-FUNDED RESEARCH DISCUSS THE COSTS AND ECONOMICS OF SEWAGE TREATMENT SYSTEMS, SEWERS, TREATMENT TECHNOLOGY, EFFLUENT DISCHARGE, AND SLUDGE DISPOSAL. MOST STUDIES COVER THE OVERALL CONSTRUCTION AND OPERATION COSTS OF SEWAGE TREATMENT PLANTS, WHEREAS OTHERS INCLUDE RATE STRUCTURES, FINANCING, USER CHARGES, AND BENEFITS OF REGIONALIZED PLANTS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 175 CITATIONS, 56 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5282 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007867

PUBLICATION DATE: MAR 82

TITLE: TEXTILE PROCESSING WASTES AND THEIR CONTROL. 1979-FEBRUARY, 1982 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE.)

DESCRIPTOR: *AIR POLLUTION; ACTIVATED CARBON; *BIBLIOGRAPHIES; DESIGN; DYES; *INDUSTRIAL WASTES; *RESEARCH REPORTS; *SOLID WASTES; *TEXTILE INDUSTRY; *WASTE MANAGEMENT; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 88P. PB82-806258; PRICE CODE: PC N01/MF N01

ABSTRACT: THESE CITATIONS OF WORLDWIDE RESEARCH COVER THE TEXTILE INDUSTRY AS IT DEALS WITH WATER POLLUTION, AIR POLLUTION, AND SOLID WASTES AND THEIR CONTROL. THE BIBLIOGRAPHY INCLUDES STUDIES OF WASTEWATER TREATMENT OF DYES, THE USE OF ACTIVATED CARBON IN THE PROCESSES, DESIGN CRITERIA OF THE CONTROL EQUIPMENT, AND REUSING MATERIALS THAT ARE RECOVERED IN THE CONTROL PROCESS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 84 CITATIONS, 22 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007868

PUBLICATION DATE: MAR 82

TITLE: TEXTILE PROCESSING WASTES AND THEIR CONTROL. 1964-FEBRUARY, 1982 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *BIBLIOGRAPHIES; BIOLOGICAL TREATMENT; COSTS; DESIGN; DYES; EQUIPMENT; *INDUSTRIAL WASTES; *POLLUTION CONTROL; *RESEARCH REPORTS; SOLID WASTES; *TEXTILE INDUSTRY; *WASTE MANAGEMENT; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 157P. PB82-806241; PRICE CODE: PC N01/MF N01

ABSTRACT: THE BIBLIOGRAPHY CONTAINS SELECTED ABSTRACTS OF RESEARCH REPORTS COVERING TEXTILE PROCESSING, AIR POLLUTION CONTROL, WATER POLLUTION CONTROL, AND SOLID WASTE DISPOSAL. INCLUDED ARE WASTE WATER TREATMENT STUDIES ON DYES, BIOLOGICAL INDUSTRIAL WASTE TREATMENT, USE OF MEMBRANES, COST ESTIMATES OF THE CONTROL TECHNOLOGY, AND DESIGN CRITERIA OF CONTROL EQUIPMENT. (THIS UPDATED BIBLIOGRAPHY CONTAINS 240 CITATIONS, 40 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007869

PUBLICATION DATE: FEB 82

TITLE: OZONIZATION USED IN WATER AND SEWAGE TREATMENT. SEPTEMBER, 1980-1981 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE.)

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIBLIOGRAPHIES; COSTS; DESIGN; *INDUSTRIAL WASTES; *OZONE; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *SEWAGE TREATMENT; *WATER ANALYSIS; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER PURIFICATION

DESCRIPTIVE NOTE: 69P. PB82-803909; PRICE CODE: PC N01/MF N01

ABSTRACT: THE CITED REPORTS FROM A WORLDWIDE LITERATURE SURVEY DISCUSS THE USE OF OZONE FOR INDUSTRIAL WASTE WATER TREATMENT, SEWAGE TREATMENT, AND WATER PURIFICATION. THE CITATIONS COVER SYSTEM DESIGN, OPERATION, COSTS, AND ADVANTAGES OVER OTHER TREATMENT METHODS. SOME STUDIES ON WATER ANALYSIS AFTER TREATMENT ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 62 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007870

PUBLICATION DATE: FEB 82

TITLE: WATER RIGHTS AND WATER LAW. 1979-JANUARY, 1982 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *BIBLIOGRAPHIES; *LEGAL ASPECTS; *MANAGEMENT; *REGULATIONS; *RESEARCH REPORTS; *STATE ROLE; *WATER MANAGEMENT; *WATER QUALITY; *WATER RESOURCES; WATER RIGHTS

DESCRIPTIVE NOTE: 104P. PB82-804329; PRICE CODE: PC N01/MF N01

ABSTRACT: LEGAL ASPECTS OF INTERSTATE AND INTRASTATE WATER

RIGHTS, WATER QUALITY, AND WATER MANAGEMENT ARE INVESTIGATED IN THESE RESEARCH REPORTS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 97 CITATIONS, 46 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007871

PUBLICATION DATE: 81

TITLE: RISK/BENEFIT ANALYSIS IN WATER RESOURCES PLANNING AND MANAGEMENT.

PERSONAL AUTHOR: HAIMES, YACOV Y.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PLANNING; *POST SECONDARY EDUCATION; *RISKS; *RISK BENEFIT ANALYSIS; *STANDARDS; *WATER RESOURCES

DESCRIPTIVE NOTE: 291P. PRICE: $35.00

ABSTRACT: IN THIS WORK, TRADE-OFFS IN RISK-BENEFIT ANALYSIS, AND IDENTIFICATION OF RISK PARAMETERS AND OBJECTIVES ARE CONSIDERED. OTHER TOPICS INCLUDE SOCIETAL PREFERENCES, IMPLEMENTING RISK AND UNCERTAINTY PROVISIONS OF PRINCIPLES AND STANDARDS, METHODS FOR QUANTIFYING RISK, AS WELL AS RISK-BENEFIT TRADE-OFF ANALYSIS.

AVAILABILITY: PLENUM PRESS, 227 WEST 17TH ST., NEW YORK, NY 10011

IRIS ACCESSION NUMBER: EW007872

PUBLICATION DATE: 82

TITLE: THE PROPERTIES OF GROUNDWATER.

PERSONAL AUTHOR: MATTHESS, GEORGE; HARVEY, JOHN C.

DESCRIPTOR: CHEMICAL ANALYSIS; CONTAMINATION; *GEOCHEMISTRY; *GROUNDWATER; *HYDROLOGY; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 406P. PRICE: $45.95

ABSTRACT: THIS BOOK EXAMINES THE PHYSICAL AND CHEMICAL PROPERTIES OF GROUNDWATER, INCLUDING LATENT HEAT, ISOTOPIC COMPOSITION, DENSITY, AND OTHER CHARACTERISTICS, GEOCHEMICAL PROCESSES CONTROLLING THESE PROPERTIES, OXIDATION/REDUCTION, AND WAYS THAT GROUNDWATER BECOMES CONTAMINATED ARE ALSO DISCUSSED. GROUNDWATER IS CLASSIFIED AND ASSESSED.

AVAILABILITY: JOHN WILEY & SONS, INC., 605 THIRD AVENUE, NEW YORK, NY 10016

IRIS ACCESSION NUMBER: EW007873

PUBLICATION DATE: FEB 82

TITLE: A NEW APPROACH IS NEEDED FOR THE FEDERAL INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM.

DESCRIPTOR: FEDERAL LEGISLATION; *FEDERAL PROGRAMS; *GUIDELINES; *HAZARDOUS MATERIALS; *INDUSTRIAL WASTEWATER; *INDUSTRY; *MUNICIPALITIES; *OPERATIONS (WASTEWATER); *PRETREATMENT; *TOXIC SUBSTANCES; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 18P. FIRST FIVE COPIES FREE OF CHARGE.

ABSTRACT: REVIEWED ARE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY'S EFFORTS TO DEVELOP AND IMPLEMENT THE INDUSTRIAL PRETREATMENT PROGRAM AUTHORIZED BY THE CLEAN WATER ACT, AS AMENDED. TOXIC POLLUTION PROBLEMS ARE EMPHASIZED AND RECOMMENDATIONS TO THE EPA ADMINISTRATOR ARE PROVIDED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW007875

PUBLICATION DATE: MAY 82

TITLE: CONSTRUCTION SERVICES: A CONTRACTOR'S VIEW.

PERSONAL AUTHOR: GENTRY, WILLIAM W.

DESCRIPTOR: *ATTITUDES; *CONSTRUCTION; *CONTRACTORS; *FACILITIES; *MANAGEMENT; *OPERATIONS

DESCRIPTIVE NOTE: 218-219P.

ABSTRACT: THE DIFFICULTIES IN CONSTRUCTING NEW FACILITIES CAN BE ALLEVIATED IF OWNER AND CONTRACTOR DISCARD SUSPICIOUS ATTITUDES AND ADOPT A COOPERATIVE WORKING RELATIONSHIP. ATTITUDES PERMEATE THE ENTIRE CONSTRUCTION PROCESS AND STRONGLY INFLUENCE COSTS, BEGINNING WITH MARKUPS ON INITIAL BIDS, IF CONTRACTORS PERCEIVE DANGER SIGNALS. OWNERS, ON THEIR PART, MUST BE AWARE OF CONTRACTORS' CONCERNS AND ACCEPT THE RESPONSIBILITY OF PROVIDING CLEAR, COMPLETE, AND FAIR CONTRACT DOCUMENTS AS WELL AS OBTAINING COMPETENT ON-SITE OWNER REPRESENTATIVES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N5

IRIS ACCESSION NUMBER: EW007876

PUBLICATION DATE: MAY 82

TITLE: PREQUALIFYING CONSTRUCTION CONTRACTORS.

PERSONAL AUTHOR: LOWER, JAY R.

DESCRIPTOR: *CONSTRUCTION; *CONTRACTORS; COSTS; *CRITERIA; *MANAGEMENT; *PREQUALIFICATIONS; *QUALIFICATIONS; *RECOMMENDATIONS; *STANDARDS

DESCRIPTIVE NOTE: 220-223P.

ABSTRACT: ONE OF THE MOST IMPORTANT ELEMENTS IN UNDERTAKING A CONSTRUCTION PROJECT IS SELECTION OF A GENERAL CONTRACTOR AND MAJOR SUBCONTRACTORS. MANY PUBLIC AGENCIES NOW USE A SYSTEM OF PREQUALIFYING CONTRACTORS BEFORE PERMITTING THEM TO SUBMIT BIDS. SOME OF THE ADVANTAGES OF PREQUALIFICATION ARE THAT ALL BIDDERS WILL BE COMPETENT AND HAVE THE RESOURCES TO ACCOMPLISH THE JOB. THE COST OF SOLICITING THE BIDS IS ALSO REDUCED. A CAREFULLY CONCEIVED SYSTEM OF PREQUALIFICATION SHOULD SERVE THE OWNER, THE CONTRACTOR, SUPPLIERS, AND SURETY UNDERWRITERS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N5

IRIS ACCESSION NUMBER: EW007877

PUBLICATION DATE: MAY 82

TITLE: HAZARDOUS MATERIAL SPILLS--ARE YOU READY?

PERSONAL AUTHOR: CARNS, KEITH E.; STINSON, KARL B.

DESCRIPTOR: *CALIFORNIA; *CASE STUDIES; *EMERGENCIES; *HAZARDOUS MATERIALS; MANAGEMENT; PERFORMANCE EVALUATION; *PLANNING; PUBLIC HEALTH; *SPILLS; *UTILITIES; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 224-228P.

ABSTRACT: EVERY WATER SUPPLY IS THREATENED BY ACCIDENTAL SPILLS OF HAZARDOUS MATERIALS ON LAND, IN WATER, AND FROM THE SKY. EACH WATER UTILITY SHOULD HAVE A COMPREHENSIVE AND TESTED PLAN IN ANTICIPATION OF SUCH CONTINGENCIES BEFORE THEY BECOME DISASTERS. THE EAST BAY MUNICIPAL UTILITY DISTRICT IN THE OAKLAND, CALIF., AREA HAS DEVELOPED, TESTED, AND USED ITS PLAN SUCCESSFULLY. OTHER UTILITIES COULD ADAPT THIS PROGRAM FOR THEIR OWN LOCALITIES TO PROTECT WATER SUPPLIES FROM THE ALMOST INEVITABLE OCCURRENCE OF ACCIDENTAL SPILLS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N5

IRIS ACCESSION NUMBER: EW007878

PUBLICATION DATE: MAY 82

TITLE: CUSTOMER AWARENESS OF PUBLIC NOTIFICATION.

PERSONAL AUTHOR: STEGMAN, CHARLES; SCHNEIDER, GEORGIA E.

DESCRIPTOR: *DRINKING WATER; MANAGEMENT; *NOTIFICATION; *PUBLIC HEALTH; PUBLIC RELATIONS; PUBLIC NOTIFICATION; *PUBLIC OPINION; PROGRAM DESCRIPTIONS; *STANDARDS; *SURVEYS;

*UTILITIES; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 229-233P.

ABSTRACT: FOURTEEN HUNDRED CUSTOMERS OF WATER SYSTEMS THAT HAD BEEN REQUIRED TO NOTIFY THE PUBLIC OF BACTERIOLOGICAL OR TURBIDITY VIOLATIONS OF MAXIMUM CONTAMINANT LEVELS WERE SURVEYED BY TELEPHONE TO DETERMINE THE EFFECTIVENESS OF PUBLIC NOTIFICATION. ONLY 41 PERCENT OF THOSE SURVEYED REMEMBERED SOME TYPE OF PUBLIC NOTIFICATION, AND EVEN FEWER REMEMBERED THAT THE NOTIFICATION CONCERNED PROBLEMS WITH DRINKING WATER QUALITY. A LARGE PROPORTION OF THOSE SURVEYED WERE SATISFIED WITH THEIR WATER, AND THEREFORE ONLY ABOUT 20 PERCENT WERE WILLING TO SPEND MORE MONEY TO IMPROVE WATER QUALITY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N5

IRIS ACCESSION NUMBER: EW007879

PUBLICATION DATE: MAY 82

TITLE: FACTORS THAT AFFECT USE OF DIRECT FILTRATION IN TREATING SURFACE WATERS.

PERSONAL AUTHOR: MCCORMICK, RICHARD FORD; KING, PAUL H.

DESCRIPTOR: CASE STUDIES; COAGULATION; *DESIGN; *DIRECT FILTRATION; *EQUIPMENT; *FILTERS; *FILTRATION; FLOCCULATION; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *RESEARCH REPORTS; *WATER SUPPLY; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 234-242P.

ABSTRACT: A PILOT PLANT WAS USED IN FIELD STUDIES OF DIRECT FILTRATION IN WHICH THE ROLES OF RAW WATER QUALITY, FILTER DESIGN, AND OPERATING VARIABLES WERE CONSIDERED. A DUAL MEDIA FILTER THAT WAS OPERATED AT 3.5 MM/S (5 GPM/SQ FT) WAS EFFECTIVE IN TREATING WATER TO WHICH COAGULANTS HAD BEEN ADDED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N5

IRIS ACCESSION NUMBER: EW007880

PUBLICATION DATE: MAY 82

TITLE: THE EFFECT OF BACKWASHING RATE ON FILTER PERFORMANCE.

PERSONAL AUTHOR: QURESHI, NAEEM

DESCRIPTOR: *BACKWASHING; *CASE STUDIES; *DESIGN; EQUIPMENT; *FILTERS; *FLUIDIZATION RATES; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *RESEARCH REPORTS; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 242-248P.

ABSTRACT: SETS OF DUAL AND MIXED MEDIA FILTERS AT THE FRIDLEY FILTER PLANT (MINNEAPOLIS, MINN.) WERE SUBJECTED TO FLUIDIZATION BACKWASHING RATES ON HEAD LOSS, EFFLUENT TURBIDITY, AND LENGTH OF FILTER RUN.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N5

IRIS ACCESSION NUMBER: EW007881

PUBLICATION DATE: MAY 82

TITLE: GETTING YOUR MONEY'S WORTH FROM FILTRATION.

PERSONAL AUTHOR: LOGSDON, GARY S.; FOX, KIM

DESCRIPTOR: *DIATOMACEOUS EARTH; *DRINKING WATER; FILTERS; *FILTRATION; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *RAPID GRANULAR MEDIA; *SAND FILTERS; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 249-256P.

ABSTRACT: ONE GOAL OF WATER TREATMENT IS PARTICULATE REMOVAL BY FILTRATION. THE EFFECTIVENESS OF THE FILTRATION PROCESS DEPENDS ON THE OPERATION OF THE FILTER PLANT. THE AUTHORS REVIEW DIATOMACEOUS EARTH, RAPID GRANULAR-MEDIA, AND SLOW SAND FILTRATION. CRUCIAL OPERATIONAL TECHNIQUES ASSOCIATED WITH EACH PROCESS ARE DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N5

IRIS ACCESSION NUMBER: EW007882

PUBLICATION DATE: MAY 82

TITLE: LOW-DOSAGE HIGH-RATE DIRECT FILTRATION.

PERSONAL AUTHOR: WAGNER, E. G.; HUDSON, H. E., JR.

DESCRIPTOR: *BENCH SCALE TESTS; *CASE STUDIES; CHEMICAL TREATMENT; *COST EFFECTIVENESS; *DIRECT FILTRATION; *FILTRATION; *PERFORMANCE EVALUATION; *STATE-OF-THE-ART REVIEWS; *WATER QUALITY; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 256-261P.

ABSTRACT: DIRECT FILTRATION THAT INVOLVES LOW CHEMICAL DOSAGES AND HIGH FILTRATION RATES CAN REDUCE THE COST OF TREATING CERTAIN WATER SOURCES. TO DETERMINE WHETHER DIRECT FILTRATION OF A RAW WATER IS FEASIBLE, A BENCH-SCALE TEST CAN BE USED. THIS ARTICLE REVIEWS FIELD EXPERIENCE WITH BENCH-SCALE, PILOT, AND PLANT TESTS OF DIRECT FILTRATION. THE FIELD EXPERIENCE AND A LITERATURE REVIEW POINT TO A WORLDWIDE TREND IN LOW-DOSAGE HIGH-RATE FILTRATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N5

IRIS ACCESSION NUMBER: EW007883

PUBLICATION DATE: MAY 82

TITLE: ENERGY-INPUT-CONTROLLED DIRECT FILTRATION TO CONTROL PROGRESSIVE EUTROPHICATION.

PERSONAL AUTHOR: BERNHARDT, HEINZ; SCHNELL, H.

DESCRIPTOR: *ALGAE; CASE STUDIES; *CHEMICAL TREATMENT; *DIRECT FILTRATION; EUTROPHICATION; FILTRATION; *PERFORMANCE EVALUATION; PHOSPHATES; PHOSPHORUS; RESEARCH REPORTS; *RESERVOIRS; *WATER QUALITY; *WATER TREATMENT; *WEST GERMANY

DESCRIPTIVE NOTE: 261-268P.

ABSTRACT: THE WAHNBACH RESERVOIR NEAR SIEGBURG, WEST GERMANY, HAD A HISTORY OF MASS ALGAL BLOOMS THAT INTERFERED WITH WATER TREATMENT. PHOSPHORUS WAS THE MAJOR CAUSE OF EUTROPHICATION, SO A PLANT WAS BUILT IN 1977 TO REDUCE THE PHOSPHATE CONCENTRATION IN RIVER WATER BEFORE IT ENTERED THE RESERVOIR. THIS ARTICLE DESCRIBES BOTH THE FULL-SCALE FILTRATION PROCESS AND THE RESULTS ACHIEVED DURING SEVERAL YEARS OF OPERATION. TOTAL PHOSPHORUS HAS BEEN REDUCED, AS HAVE TURBIDITY, CHLOROPHYLL, CHEMICAL OXYGEN DEMAND, AND DISSOLVED ORGANIC CARBON.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N5

IRIS ACCESSION NUMBER: EW007884

PUBLICATION DATE: 80

TITLE: MICROCOMPUTER INTERFACING.

PERSONAL AUTHOR: ARTWICK, BRUCE A.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTERS; DATA PROCESSING; *DESIGN; *EQUIPMENT; *GUIDES; *INSTRUCTIONAL MATERIALS; *INSTRUMENTATION; *INTERFACING; *MICROCOMPUTERS; *POST SECONDARY EDUCATION; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGY

DESCRIPTIVE NOTE: 341P.

ABSTRACT: THIS TEXT INTEGRATES INTO A SINGLE VOLUME ALL THE INFORMATION NECESSARY TO CONCEPTUALIZE, SELECT, MATE AND MATCH, BUILD, AND INTERFACE MICROCOMPUTER SYSTEMS TO MOST APPLICATIONS. CHAPTERS INCLUDE: THE MICROCOMPUTER'S ROLE IN THE REAL WORLD; SELECTING THE RIGHT MICROPROCESSOR; MEMORY; MICROCOMPUTER INPUT AND OUTPUT METHODS; INTERFACE COMPONENTS AND THEIR CHARACTERISTICS; DESIGNING INTERFACE CIRCUITS; INTERFACING TO STANDARD BUSES AND PERIPHERALS; INTERFACE LAYOUT AND CONSTRUCTION; AND, INTERFACE SOFTWARE DESIGN AND IMPLEMENTATION. VARIOUS INDUSTRY STANDARDS ARE ALSO INCLUDED AS IS A DETAILED GLOSSARY.

AVAILABILITY: PRENTICE-HALL, INC., ROUTE 59 @ BROOKHILL DR., WEST NYACK, NY 10994

IRIS ACCESSION NUMBER: EW007887

PUBLICATION DATE: JUN 81

TITLE: COAGULATION AND FILTRATION: BACK TO THE BASICS.

DESCRIPTOR: *CASE STUDIES; *COAGULATION; *CONFERENCE PROCEEDINGS; *DRINKING WATER; *FILTRATION; *OPERATIONS (WATER); *POTABLE WATER; STANDARDS; *WATER QUALITY; WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 157P. PRICE: $8.75 MEMBERS; $11.50 NONMEMBERS

ABSTRACT: PRESENTED IS A COMPILATION OF EIGHT PAPERS GIVEN AT THE 1981 CONFERENCE OF THE AMERICAN WATER WORKS ASSOCIATION. THE FIRST FOUR PAPERS PRESENT THEORETICAL CONCEPTS OF INITIAL MIXING, COAGULATION, FLOCCULATION, AND FILTRATION. THE REMAINING FOUR PAPERS PRESENT CASE HISTORIES OR PRACTICAL APPLICATIONS OF THESE PRINCIPLES AND CONFIRM THE OVERALL UTILITY OF THE COAGULATION/FILTRATION PROCESSES.

AVAILABILITY: AWWA DATA PROCESSING, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007888

PUBLICATION DATE: 81

TITLE: SMALL WATER SYSTEM PROBLEMS.

DESCRIPTOR: *CASE STUDIES; *CONFERENCE PROCEEDINGS; COST EFFECTIVENESS; *DRINKING WATER; FUNDING; *MANAGEMENT; *RURAL AREAS; *SMALL COMMUNITIES; *SMALL SYSTEMS; TRAINING; WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 109P. PRICE: $7.25 MEMBERS; $9.50 NONMEMBERS

ABSTRACT: PRESENTED ARE THE EDITED TRANSCRIPT OF A PANEL DISCUSSION ON SMALL WATER SYSTEM PROBLEMS AND FIVE PAPERS GIVEN AT THE 1981 CONFERENCE OF THE AMERICAN WATER WORKS ASSOCIATION. IDENTIFIED IN THE PAPERS ARE A VARIETY OF SMALL SYSTEM PROBLEMS SUCH AS TRAINING, SYSTEM SIZE, WATER QUALITY HISTORY, HIGH COSTS AND FUNDING.

AVAILABILITY: AWWA DATA PROCESSING, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007889

PUBLICATION DATE: 81

TITLE: ORGANIC CHEMICAL CONTAMINANTS IN GROUNDWATER: TRANSPORT AND REMOVAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CASE STUDIES; CHEMISTRY; *CONFERENCE PROCEEDINGS; *CONTAMINATION; *DRINKING WATER; *GROUNDWATER; INSTRUMENTATION; MEASUREMENT; *ORGANIC COMPOUNDS; *ORGANICS; *RESEARCH REPORTS; WATER

QUALITY; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 123P. PRICE: $8.00 MEMBERS; $10.50

ABSTRACT: PRESENTED IS A COMPILATION OF SIX PAPERS GIVEN AT THE 1981 CONFERENCE OF THE AMERICAN WATER WORKS ASSOCIATION. IMPORTANT CONCEPTUAL IDEAS NEEDED IN ADDRESSING THE GROUND WATER CONTAMINATION PROBLEM ARE INTRODUCED AND RECENT CASE STUDY DATA ON THE PRACTICAL APPLICATIONS OF ORGANICS REMOVAL FROM GROUND WATER ARE PROVIDED.

AVAILABILITY: AWWA DATA PROCESSING, 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007890

PUBLICATION DATE: 81

TITLE: ANALYZING ORGANICS IN DRINKING WATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHEMISTRY; *DRINKING WATER; MEASUREMENT; *ORGANIC COMPOUNDS; *ORGANICS; *RESOURCE MATERIALS; *WATER ANALYSIS; WATER POLLUTION CONTROL; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 120P. PRICE: $10.75 MEMBERS; $14.25 NONMEMBER

ABSTRACT: PRESENTED IS A COMPILATION OF 20 SELECTED ARTICLES FROM RECENT ISSUES OF THE JOURNAL OF THE AMERICAN WATER WORK ASSOCIATION. FEATURED ARE DISCUSSIONS OF THE THEORETICAL AND PRACTICAL ASPECTS OF ANALYZING WATERBORNE ORGANICS.

AVAILABILITY: AWWA DATA PROCESSING DEPT., 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007891

PUBLICATION DATE: 81

TITLE: WATER CONSERVATION MANAGEMENT.

DESCRIPTOR: *CONSERVATION; *HANDBOOKS; *MANAGEMENT; *NATURAL RESOURCES; *PLANNING; *PROGRAM DEVELOPMENT; PROGRAM IMPLEMENTATION; *RESOURCE MATERIALS; *UTILITIES; *WATER CONSERVATION; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 76P. PRICE: $9.50 MEMBERS; $10.75 NONMEMBERS.

ABSTRACT: DESCRIBED ARE PRACTICES AND/OR PROGRAMS FOR WATER UTILITIES WHEN WATER CONSERVATION IS NECESSARY. RESIDENTIAL WATER USE IS EMPHASIZED. FOLLOWING AN OVERVIEW OF WATER CONSERVATION POLICIES AND EFFORTS, THE DOCUMENT SUGGESTS WAYS TO INCORPORATE WATER CONSERVATION INTO WATER SUPPLY PLANNING; DETAILS THE PLANNING AND IMPLEMENTATION OF A WATER CONSERVATION PROGRAM; DESCRIBES WATER CONSERVATION TECHNIQUES THAT CAN BE APPLIED TO DIFFERENT WATER USE

CATEGORIES; AND, OFFERS ADVICE AS TO THE ROLE A WATER UTILITY CAN PLAY IN THE ALLEVIATION OF PROBLEMS DURING A DROUGHT OR EMERGENCY WATER-SUPPLY SHORTAGE. AN EXTENSIVE BIBLIOGRAPHY DESIGNED TO ASSIST THE READER IN ACQUIRING THE NECESSARY INFORMATION TO CREATE A WATER CONSERVATION PROGRAM APPLICABLE TO A LOCAL SITUATION IS PROVIDED.

AVAILABILITY: AWWA DATA PROCESSING DEPT. 6666 WEST QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007892

PUBLICATION DATE: JAN 81

TITLE: INNOVATIVE AND ALTERNATIVE TECHNOLOGY--CASE STUDIES.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *CASE STUDIES; CONSTRUCTION; DESIGN; *FACILITIES; GRANTS; *POLLUTION CONTROL; *PROGRAM DESCRIPTIONS; RECYCLING; RESOURCE RECOVERY; *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 42P.

ABSTRACT: THIS REPORT PROVIDES CASE STUDIES OF ELEVEN PROJECTS WHICH HAVE RECEIVED ADDITIONAL GRANT FUNDS THROUGH THE INNOVATIVE AND ALTERNATIVE TECHNOLOGY PROGRAM OF THE CLEAN WATER ACT. THE CASE STUDY REPORTS DESCRIBE THE PROJECT, THE INNOVATIVE COMPONENTS OF THE PROJECTS, BENEFITS AND IMPACTS OF THE INNOVATIVE TECHNOLOGY, AND IN SOME CASES THE PROCEDURE FOLLOWED FOR OBTAINING GRANT FUNDING.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW007893

PUBLICATION DATE: OCT 81

TITLE: WATER QUALITY MODELING - HYDROLOGICAL AND LIMNOLOGICAL SYSTEMS. JULY, 1977-SEPTEMBER, 1981 (A BIBLIOGRAPHY WITH ABSTRACTS.)

DESCRIPTOR: ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; BIOLOGY; CHEMISTRY; EUTROPHICATION; *HYDROLOGY; *LIMNOLOGY; *MODELS; NUTRIENT REMOVAL; PHYSICAL PROCESS; *POLLUTANTS; *RESEARCH; *RESEARCH REPORTS; RUNOFF WATERS; *STREAMS; *WATER QUALITY

DESCRIPTIVE NOTE: 236P. PRICE CODE: PC N01/MF N01; PB82-801119

ABSTRACT: CONTAINS INFORMATION ON MODELS USED TO DESCRIBE WATER QUALITY, INCLUDING MODELS OF THE CHEMICAL, PHYSICAL, BIOLOGICAL AND HYDROLOGICAL PROCESSES IMPORTANT TO WATER QUALITY. INCLUDED IN THE 249 CITATIONS ARE STUDIES ON THE MODELING OF EUTROPHICATION, NUTRIENT REMOVAL, POLLUTANT DISPERSION, STREAM FLOW, HEAT DISSIPATION, LIMNOLOGICAL FACTORS, AQUIFER WATER QUALITY, AND WATER RUNOFF QUALITY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007894

PUBLICATION DATE: SEP 81

TITLE: PUBLIC OPINION AND SOCIOLOGY OF WATER RESOURCE DEVELOPMENT. 1970-JULY, 1981 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *ATTITUDES; *COMMUNITY INVOLVEMENT; *DEVELOPMENT; DRINKING WATER; *PLANNING; *PUBLIC OPINION; *PUBLIC PARTICIPATION; *RESEARCH REPORTS; *RESEARCH; *REGIONAL PLANNING; RESOURCE DEVELOPMENT (WATER); *SOCIAL EFFECTS; SOCIOLOGY; *SURVEYS; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY; *MANAGEMENT

DESCRIPTIVE NOTE: 251P. PRICE CODE: PC N01/MF N01; PB82-800111

ABSTRACT: PRESENTED ARE 244 CITATIONS THAT PROVIDE AN INSIGHT INTO THE FEELINGS OF CITIZENS AND PUBLIC OFFICIALS TOWARD WATER RESOURCE PROGRAMS INVOLVING WATER QUALITY MANAGEMENT, RESERVOIRS, IRRIGATION, AND DRINKING WATER. ALSO INCLUDED ARE THE EFFECTS OF WATER RESOURCE DEVELOPMENT ON THE SOCIAL CONDITIONS OF A REGION OR A COMMUNITY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007895

PUBLICATION DATE: SEP 81

TITLE: SEWAGE EFFECTS IN MARINE AND ESTUARINE ENVIRONMENTS. 1977-JULY, 1981 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: ABSTRACTS; *AQUATIC ENVIRONMENT; *ANNOTATED BIBLIOGRAPHIES; CHEMISTRY; *ECOLOGY; *ESTUARIES; *MARINE ENVIRONMENT; *OCEANOGRAPHY; OCEAN DUMPING; *RESEARCH; *RESEARCH REPORTS; *SEWAGE EFFLUENTS; *SLUDGE; *WATER QUALITY

DESCRIPTIVE NOTE: 152P. PRICE CODE: PC N01/MF N01; PB82-800285

ABSTRACT: COVERS THE EFFECTS THAT SEWAGE EFFLUENTS AND SLUDGE HAVE UPON MARINE AND ESTUARINE ENVIRONMENTS, ESPECIALLY THEIR ECOLOGY. INCLUDED IN THE 143 CITATION'S ARE ENTRIES ON THE EFFECTS OF SEWAGE EFFLUENTS AND SLUDGE ON MARINE PLANTS AND ANIMALS, PROBLEMS DUE TO OCEAN DUMPING, DISPERSION STUDIES, AND WATER CHEMISTRY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007896

PUBLICATION DATE: SEP 81

TITLE: GROUND WATER POLLUTION 1964-JANUARY, 1981 (CITATIONS FROM THE AMERICAN PETROLEUM INSTITUTE DATA BASE.)

DESCRIPTOR: ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *CONTAMINATION; *GROUNDWATER; *OIL; *PETROLEUM INDUSTRY; *PETROCHEMICALS; PETROLEUM; *POLLUTION; *RESEARCH; *RESEARCH REPORTS; *WATER POLLUTION; *WATER QUALITY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 186P. PRICE CODE: PC N01/MF N01; PB82-800129

ABSTRACT: PRESENTED ARE 177 ABSTRACTS FROM WORLDWIDE RESEARCH ON THE CONTAMINATION OF GROUND WATER, ESPECIALLY FROM PETROLEUM AND PETROCHEMICAL SOURCES. SUBJECTS COVERED INCLUDE CAUSES, PHENOMENA, PREVENTION, CONTROL AND ANALYSIS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007897

PUBLICATION DATE: OCT 81

TITLE: BIOCHEMICAL OXYGEN DEMAND. 1977-SEPTEMBER, 1981 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *BIOCHEMICAL OXYGEN DEMAND; *INDUSTRIAL WASTES; LIMNOLOGY; MODELS; *OPERATIONS (WASTEWATER); *RESEARCH; *RESEARCH REPORTS; *SEWAGE; *WASTES; *WASTE TREATMENT; *WASTEWATER TREATMENT; WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 283P. PRICE CODE: PC N01/MF N01; PB82-801127

ABSTRACT: PRESENTED ARE A BROAD RANGE OF 231 CITATIONS DEALING WITH BIOCHEMICAL OXYGEN DEMAND (BOD) IN SEWAGE, INDUSTRIAL WASTE TREATMENT, WATER RUNOFF, AND LIMNOLOGY. THESE STUDIES INCLUDE/TOPICS ON BOD REDUCTION, MODELS, AND BIOLOGICAL FACTORS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007898

PUBLICATION DATE: SEP 81

TITLE: EFFECTS OF LAND USE AND URBANIZATION ON WATER RESOURCES AND WATER QUALITY. 1977-AUGUST, 1981 (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *LAND USE; *MANAGEMENT; *PLANNING; *REGIONAL PLANNING; *RESEARCH; *RESEARCH REPORTS; URBAN ENVIRONMENT; *URBANIZATION; WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 200P. PRICE CODE: PC N01/MF N01; PB82-800350

ABSTRACT: PRESENTED ARE 193 CITATIONS ON THE EFFECTS OF LAND USE AND URBANIZATION ON WATER SUPPLY AND WATER QUALITY. REPORTS ON SPECIFIC LOCALITIES HAVE BEEN INCLUDED, IF THEY

CAN BE APPLIED TO OTHER AREAS. THESE CITATIONS INCLUDE NOT ONLY LOCAL, STATE, AND NATIONAL GOVERNMENT POLICIES AND PLANNING AFFECTING LAND DEVELOPMENT, BUT ALSO BASIC RESEARCH ON THE RELATIONSHIP BETWEEN LAND USE AND WATER QUALITY MANAGEMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007899

PUBLICATION DATE: OCT 80

TITLE: STORMWATER RUNOFF CONTROL: A MODEL ORDINANCE FOR MEETING LOCAL WATER QUALITY MANAGEMENT NEEDS.

PERSONAL AUTHOR: MALONEY, FRANK E.; AND OTHERS

DESCRIPTOR: *ENVIRONMENTAL IMPACTS; LEGAL ASPECTS; *MANAGEMENT; *MODELS; *ORDINANCES; *POLLUTION CONTROL; *REGULATIONS; *RUNOFF; *STORMWATER; URBAN AREAS; *WASTEWATER COLLECTION; *WATER QUALITY

DESCRIPTIVE NOTE: 53P.

ABSTRACT: THIS PUBLICATION DISCUSSES THE MODEL STORMWATER RUNOFF CONTROL ORDINANCE AND ITS USEFULLNESS IN MEETING LOCAL WATER QUALITY MANAGEMENT NEEDS. PART I DESCRIBES THE PHYSICAL ASPECTS OF THE SURFACE WATER POLLUTION PROBLEM. PART II EXAMINES GENERAL CONTROL TECHNIQUES THAT CAN EFFECTIVELY REDUCE THE HARMFUL IMPACTS OF STORMWATER RUNOFF. PART III LOOKS AT THE COMMON LAW APPLICABLE TO DIFFUSED SURFACE WATERS. PART IV DISCUSSES THE FEDERAL LAW AND PART V LOOKS AT SOME OF THE CONSIDERATIONS THAT BEAR ON THE IMPLEMENTATION OF THE MODEL ORDINANCE.

AVAILABILITY: FLORIDA SEA GRANT COLLEGE, BUILDING 803, UNIVERSITY OF FLORIDA, GAINESVILLE, FL 32611

IRIS ACCESSION NUMBER: EW007900

PUBLICATION DATE: MAR 82

TITLE: STATES' COMPLIANCE LACKING IN MEETING SAFE DRINKING WATER REGULATIONS.

DESCRIPTOR: *COMPLIANCE; *DRINKING WATER; *ENVIRONMENTAL PROTECTION AGENCY; FACILITIES; *GUIDELINES; *PERFORMANCE EVALUATION; *PROGRAM IMPLEMENTATION; *REGULATIONS; *SAFE DRINKING WATER ACT; *STATE PROGRAMS; *WATER SUPPLY; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 22P.

ABSTRACT: THIS REPORT REVIEWS THE SAFE DRINKING WATER PROGRAM TO DETERMINE WHETHER THE U.S. ENVIRONMENTAL PROTECTION AGENCY AND PRIMACY STATES HAVE EFFECTIVELY IMPLEMENTED THE PROVISIONS OF THE ACT. THE STUDY FOUND THAT THE LACK OF FULL-TIME AND PROPERLY TRAINED WATER SYSTEM OPERATORS, APATHY TOWARD THE FEDERAL REQUIREMENTS, AND

INSUFFICIENT STATE RESOURCES, BOTH FUNDING AND PERSONNEL, ARE REASONS FOR SIGNIFICANT NON-COMPLIANCE AND INEFFICIENT IMPLEMENTATION OF THE ACT.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW007901

PUBLICATION DATE: SEP 81

TITLE: SURVEY OF ENVIRONMENTAL TRAINERS.

PERSONAL AUTHOR: NEWMAN, SANDY C.; WELLING, LAWRENCE C.

DESCRIPTOR: *COURSE CONTENT; *CURRICULUM; *ENVIRONMENTAL TECHNICIANS; *EDUCATIONAL NEEDS; *MANPOWER NEEDS; *NEEDS ASSESSMENT; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *SURVEYS; *TRAINING; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 50P.

ABSTRACT: THIS REPORT PRESENTS AN ANALYSIS OF THE RESULTS OF A SURVEY OF 35^ ENVIRONMENTAL TRAINERS. THE GOAL OF THE SURVEY WAS TO DOCUMENT INSTRUCTOR TRAINING NEEDS, COURSE NEEDS, INSTRUCTOR INTEREST AREAS, AND TO DEVELOP A PLAN AND CRITERIA FOR THE ESTABLISHMENT OF A NATIONAL TRAINERS' INSTITUTE.

AVAILABILITY: BATTELLE COLUMBUS LABORATORIES, 505 KING AVENUE, COLUMBUS, OH 43201

IRIS ACCESSION NUMBER: EW007902

PUBLICATION DATE: FEB 82

TITLE: ASSESSMENT OF WATER QUALITY CONDITIONS OHIO RIVER MAINSTREAM 1980-81.

DESCRIPTOR: *ASSESSMENT; *MONITORING; *OHIO RIVER; *POLLUTION CONTROL; REGULATIONS; *RESEARCH REPORTS; *RIVERS; *STANDARDS; *WATER QUALITY

DESCRIPTIVE NOTE: 106P.

ABSTRACT: THIS REPORT IS AN ASSESSMENT OF THE WATER QUALITY OF THE OHIO RIVER AND LOWER REACHES OF ITS MAJOR TRIBUTARIES TOGETHER WITH INFORMATION ON 1980-81 WATER POLLUTION CONTROL PROGRAMS OF THE OHIO RIVER VALLEY WATER SANITATION COMMISSION.

AVAILABILITY: OHIO RIVER VALLEY WATER SANITATION COMMISSION, 414 WALNUT STREET, CINCINNATI, OH 45202

IRIS ACCESSION NUMBER: EW007903

PUBLICATION DATE: AUG 73

TITLE: UNDERGROUND INJECTION OF WASTEWATERS IN THE OHIO VALLEY REGION.

DESCRIPTOR: *ADMINISTRATION; *GEOLOGY; *GROUNDWATER; HYDROLOGIC FACTORS; *INJECTION; *LEGISLATION; *OHIO RIVER; *PUBLIC POLICY; *RECOMMENDATIONS; *REGULATIONS; *TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER QUALITY; *WELLS

DESCRIPTIVE NOTE: 63P.

ABSTRACT: THIS DOCUMENT ADDRESSES: (1) THE STATUS OF SUBSURFACE DISPOSAL PRACTICES; (2) THE QUESTIONS OF PUBLIC POLICY, LEGISLATIVE AND LEGAL ISSUES OF UNDERGROUND INJECTION OF WASTEWATERS; AND (3) SUGGESTED PROCEDURES TO SATISFY ADMINISTRATIVE NEEDS, GEOLOGICAL EVALUATION, AND TECHNOLOGICAL CONSIDERATIONS. ALL OF THESE TOPICS ARE EXAMINED SPECIFICALLY FOR THE OHIO RIVER VALLEY.

AVAILABILITY: OHIO RIVER VALLEY WATER SANITATION COMMISSION, 414 WALNUT STREET, CINCINNATI, OH 45202

IRIS ACCESSION NUMBER: EW007904

PUBLICATION DATE: APR 81

TITLE: A STUDY OF WASTEWATER DISCHARGES FROM WATER TREATMENT PLANTS.

DESCRIPTOR: *COSTS; DATA COLLECTION; *EFFLUENTS; *ENVIRONMENTAL IMPACTS; *OPERATIONS (WATER); *PUBLIC POLICY; *RESEARCH REPORTS; *STANDARDS; *WASTE DISPOSAL; *WASTEWATER; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 89P.

ABSTRACT: THIS REPORT IS A COMPILATION OF AVAILABLE INFORMATION AND DATA PERTAINING TO THE DISCHARGE OF WASTEWATER FROM WATER TREATMENT PLANTS. THE PURPOSE OF THIS IS TO SERVE AS A BASIS FOR REVISION OF THE OHIO RIVER VALLEY WATER SANITATION COMMISSION'S EFFLUENT STANDARDS AND AS A RESOURCE TO WATER UTILITIES, STATE AND FEDERAL OFFICIALS, AND OTHER CONCERNED ORGANIZATIONS AND INDIVIDUALS.

AVAILABILITY: OHIO RIVER VALLEY WATER SANITATION COMMISSION, 414 WALNUT STREET, CINCINNATI, OH 45202

IRIS ACCESSION NUMBER: EW007905

PUBLICATION DATE: SEP 81

TITLE: EARLY WARNING...ORGANICS DETECTION SYSTEM - FINAL REPORT.

DESCRIPTOR: *DETECTION; *DISCHARGES; *DRINKING WATER; *MONITORING; POLLUTANTS; *POLLUTION CONTROL; *PROGRAM

DESCRIPTION: *RIVERS; *SPILLS; *WATER QUALITY

DESCRIPTIVE NOTE: 103P.

ABSTRACT: THIS REPORT EXAMINES THE EARLY WARNING-ORGANICS DETECTION SYSTEM (EWODS), DESIGNED BY THE OHIO RIVER VALLEY WATER SANITATION COMMISSION TO PROVIDE ADEQUATE PROTECTION AGAINST UNFORSEEN SPILLS AND DISCHARGES. SECTIONS INCLUDE: HISTORY AND DEVELOPMENT, IMPLEMENTATION, PROCEDURES, OPERATION MODIFICATION, DATA UTILIZATION, QUALITY ASSURANCE PROGRAM, DATA ASSESSMENT, UNUSUAL EVENTS, AND CONTINUING NEEDS.

AVAILABILITY: OHIO RIVER VALLEY WATER SANITATION COMMISSION, 414 WALNUT STREET, CINCINNATI, OH 45202

IRIS ACCESSION NUMBER: EW007907

PUBLICATION DATE: JUN 82

TITLE: RISK: A REGULATOR'S PERSPECTIVE.

PERSONAL AUTHOR: BREZNER, GERALD P.; WEAVER, LEO

DESCRIPTOR: *DECISION MAKING; POLLUTANTS; *PUBLIC HEALTH; *PUBLIC POLICY; *REGULATIONS; *RISK; *SAFETY; *SCIENTIFIC RESEARCH; *STANDARDS; *WATER QUALITY

DESCRIPTIVE NOTE: 23 NEWSP.

ABSTRACT: THIS ARTICLE PRESENTS A VIEWPOINT ON THE SUBJECT OF RISKS VERSUS REGULATIONS WHICH STATES THAT AN ACCEPTABLE LEVEL OF RISK IS NOT A QUANTITATIVE SCIENTIFIC QUESTION, BUT INSTEAD, IT IS A SOCIOLOGICAL-POLITICAL ISSUE THAT MUST BE RESOLVED IN A DEMOCRATIC WAY. EXAMPLES OF RISK ASSESSMENT FOR PRIORITY POLLUTANTS ARE GIVEN.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL V74 N6

IRIS ACCESSION NUMBER: EW007908

PUBLICATION DATE: JUN 82

TITLE: WATER UTILITY COSTS AND RATE DESIGN FOR FIRE PROTECTION SERVICES.

PERSONAL AUTHOR: CORSSMIT, C. W.; GREEN, D. D.

DESCRIPTOR: *ALASKA; *CASE STUDIES; *COSTS; DESIGN; ECONOMIC FACTORS; *FIRE PROTECTION; *MANAGEMENT; *OPERATIONS (WATER); *TAXES; *UTILITIES; *WATER RATES; *WATER SUPPLY

DESCRIPTIVE NOTE: 270-277P.

ABSTRACT: THE COST OF BUILDING CAPACITY TO PROVIDE ADEQUATE WATER FLOW FOR FIRE PROTECTION CAN BE SEPARATED FROM OTHER WATER USE COSTS IN ORDER TO CHARGE PROPERTY OWNERS IN PROPORTION TO THE FIRE PROTECTION THEY REQUIRE. THE PREMISE IS THAT INEQUITIES IN WATER RATES (OR PROPERTY TAXES) OCCUR

IF SIMILAR PROPERTIES DIFFER SIGNIFICANTLY IN FIRE FLOW REQUIREMENTS AS, FOR EXAMPLE, IN THE CASE OF HIGH-RISE APARTMENTS EQUIPPED WITH PRIVATE FIRE LINES AND SPRINKLER SYSTEMS AND THOSE THAT RELY SOLELY ON ENOUGH CAPACITY IN THE WATER SYSTEM FOR FIRE COMPUTED FOR THE FIRE FLOW PROVIDED BY CENTRAL ALASKA UTILITIES IN ANCHORAGE, ALASKA.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N6

IRIS ACCESSION NUMBER: EW007909

PUBLICATION DATE: JUN 82

TITLE: WATER RATES AND RESIDENTIAL WATER CONSERVATION.

PERSONAL AUTHOR: LIPPIATT, BARBARA C.; WEBER, STEPHEN F.

DESCRIPTOR: *CONSERVATION; *ECONOMIC FACTORS; *RATE SCHEDULES; *RESIDENTIAL USE; *WATER CONSERVATION; *WATER SUPPLY; *WATER RATES; *WATER USE

DESCRIPTIVE NOTE: 278-281P.

ABSTRACT: THE FIVE MAJOR TYPES OF WATER RATE SCHEDULES ARE DEFINED AND DISCUSSED. BASED ON THE ASSUMPTION THAT HIGHER WATER PRICES PROVIDE INCENTIVES TO CONSERVE WATER, EACH METHOD IS ANALYZED IN RELATION TO ITS EFFECT ON WATER CONSUMPTION. WATER RATE SCHEDULES FOR RESIDENTIAL CUSTOMERS OF 90 SYSTEMS REPRESENTING 48 STATES WERE ANALYZED TO DETERMINE THE DOLLAR VALUE OF CONSERVED WATER, I.E., THE MARGINAL PRICE OF WATER. BECAUSE MANY SYSTEMS CHARGE A FLAT RATE FOR RESIDENTIAL WATER USE, MEAN AVERAGE PRICES PER 1000 GAL WERE SIGNIFICANTLY HIGHER THAN MEAN MARGINAL PRICES. THIS DIFFERENCE CAN RESULT IN MISLEADING CALCULATIONS ABOUT THE DOLLAR VALUE OF RESIDENTIAL WATER CONSERVATION DEVICES TO CUSTOMERS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N6

IRIS ACCESSION NUMBER: EW007910

PUBLICATION DATE: JUN 82

TITLE: COST-BASED WATER RATE DESIGN.

PERSONAL AUTHOR: MATTHEWS, ROBERT B.; WEBSTER, SHIRLEY

DESCRIPTOR: *COSTS; *DESIGN; *ECONOMIC FACTORS; *MANAGEMENT; *UTILITIES (WATER); *WATER SUPPLY; *WATER RATES; *WATER USE

DESCRIPTIVE NOTE: 282-284P.

ABSTRACT: WITH A COST-BASED RATE DESIGN, THE CAPITAL COST OF MEETING PEAK DEMANDS IS BORNE BY THOSE WHO CREATE SUCH INTERMITTENT DEMANDS. PEAKING INTENSIFIES AS CONSUMPTION INCREASES AMONG RESIDENTIAL CUSTOMERS. COST-BASED WATER RATES ARE THEREFORE SET FOR CLASSES OF WATER USERS ACCORDING

TO THEIR CONTRIBUTION TO PEAK DEMAND. ONCE BASIC NEEDS ARE MET, THOSE RESIDENTIAL USERS WHO USE WATER FOR DISCRETIONARY PURPOSES, THUS CONTRIBUTING THE MOST TO PEAKING, ARE CHARGED ACCORDINGLY. RESIDENTIAL CUSTOMERS WHOSE USE FALLS WITHIN PERCEIVED ESSENTIAL NEEDS ARE CHARGED A BLOCK RATE, AND INDUSTRIAL AND COMMERCIAL USERS ARE CHARGED ON A DECLINING BLOCK BASIS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N6

IRIS ACCESSION NUMBER: EW007911

PUBLICATION DATE: JUN 82

TITLE: HOW RATE STRUCTURES AND ELASTICITIES AFFECT WATER CONSUMPTION.

PERSONAL AUTHOR: COMER, DOROTHY; BEILOCK, RICHARD

DESCRIPTOR: *COSTS; *ECONOMIC FACTORS; *RATE STRUCTURES; *WATER SUPPLY; *UTILITIES (WATER); *WATER RATES; *WATER USE

DESCRIPTIVE NOTE: 285-287P.

ABSTRACT: HOW DO RATE STRUCTURES INFLUENCE WATER CONSUMPTION? ECONOMISTS DISAGREE ABOUT THE SENSITIVITY OF DEMAND TO PRICE CHANGES. UNDERLYING ASSUMPTIONS ABOUT HOW MANY AND WHAT KINDS OF WATER USERS IN A GIVEN SYSTEM CAN AND WILL ALTER CONSUMPTION PATTERNS IN RESPONSE TO RATE CHANGES MUST BE CAREFULLY ANALYZED BEFORE DESIRED RESULTS CAN BE SOUGHT. BY USING A SERIES OF DIFFERENT ASSUMPTIONS, DIFFERENT THEORETICAL RESULTS CAN BE OBTAINED. IN PRACTICE, THE EFFECTS OF RATE CHANGES ARE RARELY, IF EVER, AS ANTICIPATED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N6

IRIS ACCESSION NUMBER: EW007912

PUBLICATION DATE: JUN 82

TITLE: POLICING DEMAND THROUGH PRICING.

PERSONAL AUTHOR: GRIFFITH, FRED P., JR.

DESCRIPTOR: *CASE STUDIES; *CONSERVATION; *COSTS; *ECONOMIC FACTORS; *FACILITIES; *MANAGEMENT; *RATE STRUCTURES; *UTILITIES (WATER); *WATER CONSERVATION; *WATER RATES; *WATER SUPPLY; *WATER USE

DESCRIPTIVE NOTE: 288-291P.

ABSTRACT: NEW WATER RATES WERE IMPLEMENTED IN FAIRFAX COUNTY (VA.) TO MEET WATER UTILITY GOALS OTHER THAN PRODUCING REVENUE. BY PROMOTING A CERTAIN AMOUNT OF WATER CONSERVATION BY CUSTOMERS WHO CREATED DISCRETIONARY DEMANDS, THE UTILITY COULD AVOID BUILDING EXPENSIVE NEW TREATMENT FACILITIES AND ADDITIONAL WATER IMPOUNDMENTS. THE NEW RATES

WERE DESIGNED TO BE FAIR TO ALL CUSTOMERS AND TO ACHIEVE THE UTILITY'S GOAL OF LIMITING PEAK CONSUMPTION TO 1.6 TIMES AVERAGE DAILY CONSUMPTION. THERE HAS BEEN A 6 PERCENT REDUCTION IN TOTAL WATER SALES, WHICH REPRESENTS A POTENTIAL 14 PERCENT REDUCTION IN PLANT SIZE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N6

IRIS ACCESSION NUMBER: EW007913

PUBLICATION DATE: JUN 82

TITLE: WORK MANAGEMENT STANDARDS.

PERSONAL AUTHOR: TIPPIN, DAVID L.; BARRON, GRACE M.

DESCRIPTOR: *BUDGETING; *CASE STUDIES; *COMPUTER APPLICATIONS; *EMPLOYEE RELATIONS; *FLORIDA; *LABOR COSTS; *MATERIAL COSTS; *MANAGEMENT; *PERFORMANCE EVALUATION; *PERFORMANCE STANDARDS; *STANDARDS; *UTILITIES (WATER)

DESCRIPTIVE NOTE: 292-295P.

ABSTRACT: THE TAMPA, FLA., WATER DEPARTMENT HAS DEVELOPED A COMPUTER SYSTEM APPROACH TO SET WORK PERFORMANCE STANDARDS, ESTIMATE LABOR AND MATERIALS COSTS ACCURATELY, DEVELOP REALISTIC BUDGETS, AND MAINTAIN MANAGEMENT CONTROL. MAINTENANCE EMPLOYEES' WORK PERFORMANCES ARE NOW ESTIMATED TO BE MORE THAN 70 PERCENT EFFICIENT COMPARED WITH 30-40 PERCENT PRIOR TO DEVELOPMENT OF THE PERFORMANCE STANDARDS. COST SAVINGS HAVE RESULTED FROM INCREASED PRODUCTION AND IMPROVEMENT IN WORK METHODS.

AVAILABILITY: AMERICA WATER WORKS ASSOCIATION JOURNAL, V74 N6

IRIS ACCESSION NUMBER: EW007914

PUBLICATION DATE: JUN 82

TITLE: STATISTICAL SAMPLING TECHNIQUE FOR CONTROLLING THE ACCURACY OF SMALL WATER METERS.

PERSONAL AUTHOR: TAO, PENCHIH

DESCRIPTOR: *COSTS; *EQUIPMENT; *MAINTENANCE; *METERS; *PERFORMANCE EVALUATION; *PREVENTIVE MAINTENANCE; *RESEARCH REPORTS; *WATER METERS

DESCRIPTIVE NOTE: 296-304P.

ABSTRACT: BECAUSE A PERIODIC REPAIR PROGRAM HAS NOT BEEN COST-EFFECTIVE IN REPLACING INACCURATE METERS, THE AUTHOR SUGGESTS A STATISTICAL SAMPLING SCHEME AS AN ALTERNATIVE PROGRAM. THE THEORY AND DESIGN OF THE SAMPLING TEST ARE DESCRIBED. THE PROPOSED PROGRAM WILL REDUCE METER CHANGES AND REPAIRS AND THEIR ASSOCIATED COSTS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74

N6

IRIS ACCESSION NUMBER: EW007915

PUBLICATION DATE: JUN 82

TITLE: ANALYTICAL NOTE: EVALUATION OF THE M-SPC METHOD AS A SUBSTITUTE FOR THE STANDARD PLATE COUNT IN WATER MICROBIOLOGY.

PERSONAL AUTHOR: HAAS, CHARLES N.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DATA ANALYSIS; *LABORATORY PROCEDURES; *MICROBIOLOGY; *SAMPLING; *STANDARD PLATE COUNT; *WATER QUALITY

DESCRIPTIVE NOTE: 322P.

ABSTRACT: WATER SAMPLES FROM TWO NEW ENGLAND WATER TREATMENT PLANTS WERE ANALYZED IN ORDER TO COMPARE THE STANDARD PLATE COUNT (SPC) PROCEDURE WITH A MODIFICATION OF SPC-MEMBRANE FILTER STANDARD PLATE COUNT (M-SPC). COMPUTERIZED ANALYSES PERFORMED ON THE DATA INDICATE THAT THE M-SPC METHOD IS A SATISFACTORY ALTERNATIVE TO THE SPC METHOD. MOREOVER, M-SPC IS MORE SENSITIVE THAN SPC BECAUSE IT CAN HANDLE SAMPLE VOLUMES IN EXCESS OF 1.0 ML.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V74 N6

IRIS ACCESSION NUMBER: EW007916

PUBLICATION DATE: JUN 82

TITLE: SHEDDING LIGHT ON PRODUCTIVITY.

DESCRIPTOR: *COST EFFECTIVENESS; *ELECTRICAL SYSTEMS; *EQUIPMENT; HUMAN FACTORS ENGINEERING; ILLUMINATION SYSTEMS; LIGHT; *LIGHTING; *MANAGEMENT; PERFORMANCE; *PRODUCTIVITY; *WORK ENVIRONMENT

DESCRIPTIVE NOTE: 84-89P.

ABSTRACT: THIS ARTICLE, REVIEWS THE BASIC COMPONENTS OF ENERGY MANAGEMENT AS IT RELATES TO WORKSPACE ILLUMINATION AND WORKER EFFICIENCY. TOPICS ADDRESSED INCLUDE: LIGHTING MANAGEMENT OPTIONS, FIXTURE OPTIONS, SHIELDING AND DIFFUSING MEDIA, BALLASTS, LIGHTING CONTROLS, AND MAINTENANCE. OVERALL COST-EFFECTIVENESS IS DISCUSSED AND DATA ARE PROVIDED FOR GENERAL LIGHTING LAMP/BALLAST CHARACTERISTICS, LAMP INTERCHANGEABILITY, AND COST ANALYSIS OF REPLACING EXISTING MERCURY SYSTEMS WITH ALTERNATIVE SYSTEMS.

AVAILABILITY: CONSULTING ENGINEERING, V52 N6

IRIS ACCESSION NUMBER: EW007917

PUBLICATION DATE: JUN 82

TITLE: DIAL C-A-C-D FOR PRODUCTIVITY PROFITS.

PERSONAL AUTHOR: JOHNSON, RONALD L.

DESCRIPTOR: *ARCHITECTURE; COMPUTER APPLICATIONS; *COMPUTER GRAPHICS; *COMPUTERS; COST EFFECTIVENESS; DRAFTING; *ENGINEERING; *GRAPHIC DESIGN; PRODUCTIVITY; *TECHNOLOGICAL ADVANCEMENTS; TECHNOLOGY

DESCRIPTIVE NOTE: 93-98P.

ABSTRACT: THIS ARTICLE EXAMINES THE POTENTIAL USES OF COMPUTER-AIDED GRAPHIC DESIGN IN THE FIELDS OF ARCHITECTURE AND ENGINEERING. VARIOUS ASPECTS OF COMPUTER-AIDED GRAPHIC DESIGN ARE DISCUSSED AND SPECIFIC ATTENTION IS FOCUSED ON DISPELLING THE MYTH OF PRODUCTIVITY DISINCENTIVE. USER SURVEY RESULTS, COST-BENEFIT INFORMATION, AND RECOMMENDATIONS FOR A REVISED FEE SYSTEM ARE ALSO INCLUDED.

AVAILABILITY: CONSULTING ENGINEER, V58 N6

IRIS ACCESSION NUMBER: EW007918

PUBLICATION DATE: JUN 82

TITLE: AIRBORNE REMOTE SENSING.

PERSONAL AUTHOR: SCHWEITZER, GLENN E.

DESCRIPTOR: AERIAL PHOTOGRAPHY; *AIR QUALITY; *CASE STUDIES; *ENVIRONMENTAL TECHNOLOGY; *LASERS; *MONITORING; *PROJECT DESCRIPTIONS; *REMOTE SENSING; *TECHNOLOGICAL ADVANCEMENTS; *WATER QUALITY

DESCRIPTIVE NOTE: 338A-343A, 346AP.

ABSTRACT: THIS ARTICLE EXAMINES NEW AND EXPANDED ENVIRONMENTAL REMOTE SENSING APPLICATIONS AND THEIR TECHNIQUES. ATTENTION IS FOCUSED ON APPLIED USES OF MULTISPECTRAL SCANNING, LASER TECHNOLOGY, AND AERIAL PHOTOGRAPHY. USE OF POLLUTION DETECTION AND AIR AND WATER QUALITY SURVEYS ARE GIVEN FOR EACH.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V16 N6

IRIS ACCESSION NUMBER: EW007921

PUBLICATION DATE: JUN 82

TITLE: RATE STRUCTURE ALTERNATIVES FOR UTILITIES.

PERSONAL AUTHOR: GALL, JOHN J.; CATLIN, THOMAS S.

DESCRIPTOR: *ECONOMIC FACTORS; MANAGEMENT; *RATE STRUCTURES; *RATES; *SEWAGE SYSTEMS; *SEWERS; *WASTEWATER COLLECTION; WATER CONSERVATION; *WATER RATES; *WATER

RESOURCES; *WATER USE

DESCRIPTIVE NOTE: 39-43P.

ABSTRACT: THIS ARTICLE DISCUSSES VARIOUS ALTERNATIVES TO THE DECLINING BLOCK RATE STRUCTURE THAT CAN BE USED TO MAKE CHARGES MORE EQUITABLE AND TO ENHANCE CONSERVATION. ALTERNATIVES AND OTHER TOPICS DISCUSSED INCLUDE: SERVICE CHARGES, UNIFORM RATES, INCREASING BLOCK RATES, SEASONAL SURCHARGES, WHOLESALE WATER RATES, SEWER RATE STRUCTURE ALTERNATIVES, RETAIL SEWER RATE ALTERNATIVES, DIRECT MEASUREMENTS, WHOLESALE SEWER RATES, AND APPORTIONING COSTS.

AVAILABILITY: PUBLIC WORKS, V113 N6

IRIS ACCESSION NUMBER: EW007922

PUBLICATION DATE: JUN 82

TITLE: WATER TANK REPAIR AND REHABILITATION.

PERSONAL AUTHOR: BREITSAMETER, JOHN L.

DESCRIPTOR: *CASE STUDIES; *COSTS; *EQUIPMENT; *FACILITIES; *MAINTENANCE; *REHABILITATION; *REPAIR; *TANKS; *WATER SUPPLY; *WATER STORAGE; *WATER TANKS

DESCRIPTIVE NOTE: 42-43P.

ABSTRACT: THIS ARTICLE EXAMINES THE WATER TANK REPAIR AND REHABILITATION PROJECT CONDUCTED BY NORTHLAKE, ILLINOIS. THREE TANKS, WITH A TOTAL CAPACITY OF 4.6 MILLION GALLONS NEEDED SUBSTANTIAL REPAIRS ON TOP OF THE USUAL REHABILITATION WORK. ALL WORK COMPLETED ON THE PROJECT IS DISCUSSED IN DETAIL.

AVAILABILITY: PUBLIC WORKS, V113 N6

IRIS ACCESSION NUMBER: EW007923

PUBLICATION DATE: JUN 82

TITLE: NEW BUBBLE DIFFUSERS REDUCE TREATMENT COST.

PERSONAL AUTHOR: CLAVEL, ROBERT L.; SCALISE, MICHAEL A.

DESCRIPTOR: *BUBBLE DIFFUSERS; *CASE STUDIES; *COST EFFECTIVENESS; *DISSOLVED OXYGEN; DESIGN; *ENERGY CONSERVATION; *EQUIPMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46-47P.

ABSTRACT: THIS ARTICLE EXAMINES THE INSTALLATION AND USE OF FINE BUBBLE DIFFUSERS WHICH ENABLED A WASTEWATER TREATMENT PLANT TO MEET EFFLUENT CRITERIA, INCREASE TREATMENT EFFICIENCY, AND SUBSTANTIALLY REDUCE ENERGY COSTS. ADDITIONAL BENEFITS WHICH ARE ALSO DISCUSSED INCLUDE HIGH OXYGEN TRANSFER EFFICIENCIES, REDUCED FLOC SHEARING, AND RESISTANCE TO CLOGS.

AVAILABILITY: PUBLIC WORKS, V113 N6

IRIS ACCESSION NUMBER: EW007924

PUBLICATION DATE: JUN 82

TITLE: LOW-COST TREATMENT OF WASTEWATER.

PERSONAL AUTHOR: RICH, LINVIL G.

DESCRIPTOR: *AERATION; *COST EFFECTIVENESS; *COSTS; *DESIGN; *ECONOMIC FACTORS; ENGINEERING; *EQUIPMENT; *FACILITIES; LAGOONS; *OPERATIONS (WASTEWATER); STABILIZATION PONDS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 52-54P.

ABSTRACT: THIS ARTICLE PRESENTS A DISCUSSION AND ANALYSIS OF EFFECTIVE WASTEWATER TREATMENT METHODS THAT DO NOT REQUIRE MECHANICALLY-COMPLEX TECHNOLOGIES. ATTENTION IS FOCUSED ON TECHNOLOGIES THAT ARE MODERATELY LAND INTENSIVE, MECHANICALLY SIMPLE, AND BASED ON SOUND ENGINEERING PRINCIPLES. TOPICS ADDRESSED INCLUDE: EQUIPMENT DEVELOPMENT, AERATED LAGOONS, AERATION EQUIPMENT, BENTHAL STABILIZATION PONDS, AND AERATION REQUIREMENTS.

AVAILABILITY: PUBLIC WORKS, V113 N6

IRIS ACCESSION NUMBER: EW007925

PUBLICATION DATE: JUN 82

TITLE: PLANT SUCCESSFULLY REMOVES TRICHLOROTHYLENE.

DESCRIPTOR: *CASE STUDIES; *CONTAMINANTS; *DESIGN; *EQUIPMENT; *FACILITIES; *GROUNDWATER; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *TRICHLOROETHYLENE; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 74P.

ABSTRACT: THIS ARTICLE EXAMINES THE SUCCESSFUL CONTROL OF TRICHLOROETHYLENE, A CARCINOGENIC ORGANIC CONTAMINANT, BY A WILMINGTON, MASSACHUSETTS, WATER TREATMENT PLANT. THE SUCCESSFUL REMOVAL OF THE TRICHLOROETHYLENE IN THE GROUNDWATER WAS ACCOMPLISHED BY EXPANDING THE INDUCED DRAFT AERATORS AND FOLLOWING WITH CARBON ADSORPTION.

AVAILABILITY: PUBLIC WORKS, V113 N6

IRIS ACCESSION NUMBER: EW007942

PUBLICATION DATE: JUN 82

TITLE: TRAINING NEEDS OF PEOPLE NEW TO TRAINING.

PERSONAL AUTHOR: DIGEORGIO, RICHARD M.

DESCRIPTOR: *COLLEGE PROGRAMS; *CONTINUING EDUCATION; *EDUCATIONAL PROGRAMS; *NEEDS ASSESSMENT; *PROGRAM EVALUATION; *RESEARCH REPORTS; *TRAINERS; *TRAINING NEEDS; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 16-25P.

ABSTRACT: THIS ARTICLE PRESENTS THE FINDINGS AND RECOMMENDATIONS OF A STUDY OF THE TRAINING NEEDS OF NEW ENTRANTS TO THE TRAINING FIELD. THREE MAJOR CONCLUSIONS WERE REACHED. FIRST, TWO SEPARATE AUDIENCES ARE LIKELY TO BE DRAWN TO CONTINUING EDUCATION PROGRAMS IN TRAINING AND EACH HAVE DIFFERENT NEEDS. SECOND, THE DEVELOPMENTAL NEEDS OF TRAINERS ARE RELATED TO THE RESPONSIBILITIES TRAINING MANAGEMENT WILL ALLOW THEM. THIRD, THE CREDIBILITY OF UNIVERSITY TRAINING AND DEVELOPMENT CONTINUING EDUCATION PROGRAMS IS CRITICAL TO LONG-TERM SUCCESS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N6

IRIS ACCESSION NUMBER: EW007943

PUBLICATION DATE: JUN 82

TITLE: THE NOMINAL GROUP TECHNIQUE: APPLICATIONS FOR TRAINING NEEDS ASSESSMENT.

PERSONAL AUTHOR: SCOTT, DOW; DEADRICK, DIANA

DESCRIPTOR: *DECISION MAKING; *EVALUATION; *MANAGEMENT; *NEEDS ASSESSMENT; *NOMINAL GROUP TECHNIQUE; *TRAINING PROGRAMS; *TRAINING

DESCRIPTIVE NOTE: 26-33P.

ABSTRACT: THIS ARTICLE DISCUSSES THE NOMINAL GROUP TECHNIQUE AND EXAMINES ITS USE IN TRAINING NEEDS ASSESSMENT. THE NOMINAL GROUP TECHNIQUE IS DESCRIBED AS A METHOD FOR GENERATING IDEAS IN SITUATIONS WHERE THE PARTICIPANTS DO NOT FULLY UNDERSTAND OR AGREE UPON THE NATURE OF THE PROBLEM OR HOW TO SOLVE IT. APPLICATIONS AND EVALUATION OF THIS TECHNIQUE ARE ALSO DISCUSSED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V36 N6

IRIS ACCESSION NUMBER: EW007963

PUBLICATION DATE: JUL 75

TITLE: ASSESSMENT AND DETERMINATION OF BASIC COMPETENCIES NECESSARY FOR UTILITY OPERATORS UTILIZING GROUND WATER SUPPLIES - PART II.

PERSONAL AUTHOR: STEGEMAN, GARY L.; AND OTHERS

DESCRIPTOR: *COMPETENCIES; *CURRICULUM; *CURRICULUM DEVELOPMENT; *GROUNDWATER; *GUIDES; *INSTRUCTIONAL MATERIALS; OPERATIONS (WATER); *OPERATOR TRAINING; *POST SECONDARY EDUCATION; WATER DISTRIBUTION; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 166P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE. NOTE: MARGINAL LEGIBILITY. LIGHT AND BROKEN TYPE.

ABSTRACT: THIS CURRICULUM GUIDE IS PART OF A PROJECT TO DEVELOP A COMPETENCY-BASED CURRICULUM MODEL FOR STATEWIDE USE IN PART-TIME EXTENSION PROGRAMS FOR WATER UTILITY OPERATORS. THE GUIDE CONTAINS MODULES ON: THE OPERATOR, THE UTILITY, GROUNDWATER, WELLS, PUMPING, DISTRIBUTION SYSTEMS, METERS, WATER QUALITY, WATER ANALYSIS, CHLORINATION, FLUORIDATION, IRON CONTROL, INVENTORY AND PURCHASING, PUBLIC RELATIONS, AND SAFETY. EACH MODULE CONTAINS INDIVIDUAL TOPIC AREAS WHICH ARE SEGMENTED INTO BEHAVIORAL OBJECTIVES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007964

PUBLICATION DATE: 78

TITLE: PROJECT MANAGEMENT AND THE PROCUREMENT PROCESS.

DESCRIPTOR: *CONTRACTS; *ENVIRONMENTAL PROTECTION AGENCY; *GUIDES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; PLANNING; *POSTSECONDARY EDUCATION; *PROCUREMENT; *PROJECT MANAGEMENT; SEMINARS; *SUPERVISION; *TRAINING; *WORKSHOPS

DESCRIPTIVE NOTE: 200P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE. NOTE: BEST AVAILABLE COPY.

ABSTRACT: THIS GUIDE PRESENTS MATERIALS FOR A THREE DAY, 21 HOUR SEMINAR WORKSHOP ON PROJECT MANAGEMENT AND THE PROCUREMENT PROCESS. THE PURPOSE OF THE WORKSHOP IS TWOFOLD: (1) TO EXAMINE THE STRUCTURED ROLES AND RESPONSIBILITIES OF TECHNICAL AND PROCUREMENT PERSONNEL THROUGH WHICH PROGRAM MANAGEMENT AND THE PROCUREMENT PROCESS SATISFY EPA REQUIREMENTS AND NEEDS; AND (2) TO PROVIDE INFORMATION AND EXAMINES ILLUSTRATING THE NECESSARY INTERENCE OF THE TECHNICAL AND PROCUREMENT COMMUNITIES INORDER TO MEET EPA'S MISSION.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007965

PUBLICATION DATE: MAR 75

TITLE: STREAM SURVEILLANCE AND MONITORING: FIELD AND LABORATORY PROCEDURES - TRAINING MANUAL.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *MONITORING; *POST SECONDARY EDUCATION; *SAMPLING; *STREAMS; *TRAINING MANUALS; *WATER QUALITY

DESCRIPTIVE NOTE: 290P. PRICE: $1.00 PER DOCUMENT PLUS

$0.03 PER PAGE. NOTE: BEST AVAILABLE COPY.

ABSTRACT: THIS COURSE IS DESIGNED FOR PERSONNEL ENGAGED IN PROGRAMS CONCERNED WITH MONITORING THE QUALITY OF SURFACE WATERS. INTERDISCIPLINARY NEEDS AND RESPONSIBILITIES IN THE ACCUMULATION AND INTERPRETATION OF DATA FROM FIELD AND LABORATORY ACTIVITIES ARE EMPHASIZED. UPON COMPLETION OF THE COURSE THE STUDENT WILL BE ABLE TO APPLY SUITABLE METHODS, TECHNIQUES, AND INSTRUMENTATION USED IN FIELD SAMPLING AND MEASUREMENTS, AND WILL BE FAMILIAR WITH BASIC LABORATORY TECHNIQUES AND PROCEDURES IN THE CHEMICAL, BIOLOGICAL, AND BACTERIOLOGICAL AREAS. ADVANTAGES AND LIMITATIONS OF EQUIPMENT, METHODS AND TECHNIQUES WILL BE CONSIDERED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007966

PUBLICATION DATE: FEB 79

TITLE: ON-THE-JOB TRAINING WORKBOOK.

DESCRIPTOR: *CAREER DEVELOPMENT; *CAREER EDUCATION; *DRINKING WATER; *ENVIRONMENTAL PROTECTION AGENCY; *FEDERAL GOVERNMENT; *INSTRUCTIONAL MATERIALS; *PERSONNEL DEVELOPMENT; *PLANNING; *POSTSECONDARY EDUCATION; SKILL DEVELOPMENT; *STAFF DEVELOPMENT; *TRAINING

DESCRIPTIVE NOTE: 38P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: DEVELOPED FOR USEPA-OFFICE OF DRINKING WATER EMPLOYEES IN THE TEN USEPA REGIONS. THIS MANUAL WAS DESIGNED TO ASSIST NEW EMPLOYEES IN PLANNING AND DEVELOPING A 3-6 MONTHS, ON-THE-JOB TRAINING PROGRAM. FOLLOWING AN INTRODUCTION AND A SECTION ON THE USE OF THIS WORKBOOK, THE DOCUMENT PRESENTS GUIDELINES FOR THE ANALYSIS OF THE CURRENT JOB; LISTS EIGHT ON-THE-JOB TRAINING TASKS; DETAILS AN ON-THE-JOB TRAINING WORK PLAN; AND, PROVIDES CRITERIA FOR SUMMARIZING THE ON-THE-JOB TRAINING EXPERIENCE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007967

PUBLICATION DATE: APR 74

TITLE: EVALUATION OF TRAINING FOR WASTE TREATMENT WORKS OPERATION AND MAINTENANCE PERSONNEL OF SOUTH TEXAS.

DESCRIPTOR: *EVALUATION; *GRANT PROGRAMS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *OPERATOR TRAINING; PROGRAM DESCRIPTIONS; *PROGRAM EVALUATION; *TEXAS; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 63P. PRICE: $1.00 PER DOCUMENT PLUS

$0.03 PER PAGE.

ABSTRACT: THIS PUBLICATION REPORTS ON AN INTERAGENCY EVALUATION OF PROGRAMS CONDUCTED UNDER TRAINING GRANTS FOR WASTE TREATMENT WORKS OPERATION AND MAINTENANCE PERSONNEL IN TEXAS. AN OVERALL EVALUATION AND COST BENEFIT ANALYSIS ARE INCLUDED AS WELL AS DISCUSSION OF FINDINGS RELATING TO TRAINEE IMPACT, IMPACT ON PLANT PRODUCTION, AND CURRICULUM AND TEACHING.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007968

PUBLICATION DATE: APR 75

TITLE: INDUSTRIAL WASTE PRETREATMENT AND REGUALTION OF SEWER USE FOR MUNICIPALITIES.

DESCRIPTOR: *INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; MANUALS; *MONITORING; *MUNICIPALITIES; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; PRETREATMENT; *REGULATIONS; *SEWERS; *TRAINING; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 117P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE. NOTE: BEST AVAILABLE COPY.

ABSTRACT: THIS COURSE IS DESIGNED FOR LOCAL AND STATE EMPLOYEES HAVING RESPONSIBILITY FOR PUBLIC TREATMENT PLANT OPERATIONS. THIS INCLUDES THE IDENTIFICATION, MONITORING AND SURVEY OF INDUSTRIAL POLLUTANTS AND THE TREATING AND/OR PROHIBITING OF INDUSTRIAL WASTES WHICH MAY AFFECT TREATMENT PLANT OPERATIONS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007969

PUBLICATION DATE: 73

TITLE: CHEMICAL EXAMINATION OF DRINKING WATER - TRAINING COURSE MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHROMATOGRAPHY; *DRINKING WATER; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; POLLUTANTS; *POST SECONDARY EDUCATION; *TRAINING MANUALS; *WATER TREATMENT; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 138P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS COURSE IS DESIGNED FOR THOSE INDIVIDUALS RESPONSIBLE FOR THE CHEMICAL EXAMINATION OF DRINKING WATER. THE COURSE WILL COVER APPROPRIATE WET METHODS. BOTH THEORY

AND APPLICATION OF SUCH ANALYTICAL TOOLS AS THE VARIOUS TYPES OF CHROMATOGRAPHY WILL BE DISCUSSED. INORGANIC AS WELL AS ORGANIC POLLUTANTS WILL BE CONSIDERED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007970

PUBLICATION DATE: 73

TITLE: FLUORIDE DETERMINATIONS IN WATER - TRAINING COURSE MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; *FLUORIDE; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; SAFETY; *TRAINING MANUALS; *WATER TREATMENT; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 52P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS COURSE IS DESIGNED TO PROVIDE WATER FLUORIDE ANALYSIS TRAINING FOR INDIVIDUALS DIRECTLY INVOLVED IN PERFORMING FLUORIDE DETERMINATIONS ON DRINKING WATERS. THE FLUORIDATION OF PUBLIC WATER SUPPLIES REQUIRES CLOSE CONTROL OF DOSAGE RATES FOR OPTIMUM DENTAL HEALTH BENEFITS. ACCURATE ANALYTICAL DETERMINATIONS OF FLUORIDE LEVELS IN THE WATER ARE ESSENTIAL TO CONTROL THE DOSAGE RATES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007971

PUBLICATION DATE: JUN 78

TITLE: UNDERSTANDING NOISE AND NOISE CONTROL - INSTRUCTIONAL UNITS FOR OPERATING ENGINEERS IN APPRENTICESHIP PROGRAMS.

DESCRIPTOR: *APPRENTICESHIPS; *ENGINEERS; *INSTRUCTIONAL MATERIALS; *NOISE; *NOISE CONTROL; *OCCUPATIONAL HEALTH; *POST SECONDARY EDUCATION; *TRAINING MANUALS; *TRAINING PROGRAMS; *WORK ENVIRONMENT

DESCRIPTIVE NOTE: 70P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE. NOTE: BEST AVAILABLE COPY.

ABSTRACT: THIS GUIDE IS DESIGNED TO SERVE AS THE BASIS FOR A SELF-CONTAINED PROGRAM OF INSTRUCTION ADDRESSING NOISE IN THE TOTAL ENVIRONMENT OF THE OPERATING ENGINEER. IT IS DESIGNED TO BE USED AS AN INDEPENDENT PROGRAM OF INSTRUCTION FOR OPERATING ENGINEER APPRENTICES, OR TO BE INTEGRATED WITH OTHER COMPONENTS OF A COMPLETE APPRENTICESHIP TRAINING PROGRAM. THE TWO UNITS OF STUDY ARE: UNDERSTANDING NOISE AND ITS HARMFUL EFFECTS AND UNDERSTANDING NOISE CONTROL.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007972

PUBLICATION DATE: 73

TITLE: EVALUATION OF PUBLIC WATER SUPPLIES - TRAINING COURSE MANUAL.

DESCRIPTOR: *DRINKING WATER; *EVALUATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; STANDARDS; *TRAINING; *WATER TREATMENT; *WATER QUALITY; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 91P. PRICE: $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS COURSE IS DESIGNED TO PROVIDE TRAINING ON RECOMMENDED PROCEDURES FOR SURVEYING AND EVALUATING A WATER SUPPLY SYSTEM THAT IS TO PRODUCE WATER THAT CONTINUOUSLY MEETS THE REQUIREMENTS OF THE PUBLIC HEALTH SERVICE DRINKING WATER STANDARDS. THE TRAINING COURSE MANUAL HAS BEEN PREPARED ESPECIALLY FOR TRAINEES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW008030

PUBLICATION DATE: 82

TITLE: DRINKING WATER AND HEALTH - VOLUME 4.

DESCRIPTOR: *CONTAMINANTS; *DRINKING WATER; *HEALTH EFFECTS; *PUBLIC HEALTH; *RESEARCH REPORTS; SAFE DRINKING WATER ACT; *TOXICITY; *WATER TREATMENT; *WATER DISTRIBUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 299P. PRICE: $15.95

ABSTRACT: THIS STUDY IDENTIFIES CHEMICAL AND BIOLOGICAL CONTAMINANTS ASSOCIATED WITH DRINKING WATER DISTRIBUTION SYSTEMS AND THE HEALTH IMPLICATIONS OF DEFICIENCIES IN THOSE SYSTEMS. IT ALSO CONTAINS AN EVALUATION OF INFORMATION ON THE TOXICITY OF SELECTED INORGANIC AND ORGANIC CONTAMINANTS. SECTIONS INCLUDE: ELEMENTS OF PUBLIC WATER SUPPLY; CHEMICAL QUALITY OF WATER IN THE DISTRIBUTION SYSTEM; BIOLOGICAL QUALITY OF WATER IN THE DISTRIBUTION SYSTEM; HEALTH IMPLICATIONS; TOXICITY OF SELECTED INORGANIC CONTAMINANTS; AND TOXICITY OF SELECTED ORGANIC CONTAMINANTS.

AVAILABILITY: NATIONAL ACADEMY OF SCIENCES, OFFICE OF PUBLICATIONS, 2101 CONSTITUTION AVENUE, NW, WASHINGTON, DC 20418

IRIS ACCESSION NUMBER: EW008031

PUBLICATION DATE: 79

TITLE: MAINTENANCE SERVICE GUIDE.

DESCRIPTOR: *CONSTRUCTION; *EQUIPMENT; *EQUIPMENT MAINTENANCE; *GUIDES; *INSTRUCTIONAL MATERIALS; *LANDFILLS; MACHINERY; *MAINTENANCE; *MAINTENANCE(PREVENTATIVE); *POSTSECONDARY EDUCATION; *STUDY GUIDES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 43P.

ABSTRACT: THIS GUIDE EMPHASIZES THE IMPORTANCE OF PERIODIC MAINTENANCE OF LANDFILL EQUIPMENT. SPECIFIC TIMES FOR PERFORMING DAILY, WEEKLY, AND MONTHY MAINTENANCE SERVICE, AND THE MAINTENANCE TO BE PERFORMED, ARE OUTLINED IN THIS TEXT. THIS GUIDE IS ACCOMPANIED BY A SUPPORTING PUBLICATION ENTITLED "HOME STUDY TEXT."

AVAILABILITY: TENNESSEE VALLEY AUTHORITY, 258 DAYLIGHT BUILDING, KNOXVILLE, TN 37902

IRIS ACCESSION NUMBER: EW008032

PUBLICATION DATE: 79

TITLE: LANDFILL EQUIPMENT MAINTENANCE - HOME STUDY TEXT.

DESCRIPTOR: *CONSTRUCTION; *EQUIPMENT; *EQUIPMENT MAINTENANCE; *GUIDES; *INSTRUCTIONAL MATERIALS; *LANDFILLS; MACHINERY; *MAINTENANCE; *MAINTENANCE(PREVENTATIVE); *POSTSECONDARY EDUCATION; *STUDY GUIDES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 49P.

ABSTRACT: THIS STUDY TEXT HAS BEEN WRITTEN TO COMPLIMENT TVA'S MAINTENANCE SERVICE GUIDE FOR LANDFILL EQUIPMENT. IT IS DESIGNED TO PROVIDE GREATER DETAIL ON THE HOWS AND WHYS OF SERVICING LANDFILL EQUIPMENT. TOPICS ADDRESSED INCLUDE: PREPARING FOR MAINTENANCE SERVICE, WALK-AROUND INSPECTION, INDICATORS AND GAUGES, LUBRICATION, FILTERS, AIR CLEANER, HYDRAULIC SYSTEM, COOLING SYSTEM, ELECTRICAL GENERATING SYSTEM, AND CHECKING TRACK TENSION.

AVAILABILITY: TENNESSEE VALLEY AUTHORITY, 258 DAYLIGHT BUILDING, KNOXVILLE, TN 37902

IRIS ACCESSION NUMBER: EW008036

PUBLICATION DATE: AUG 71

TITLE: ALGAL ASSAY PROCEDURE BOTTLE TEST.

DESCRIPTOR: *ALGAE; *ASSAYS; *EQUIPMENT; EUTROPHICATION; *LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; *SAMPLING; *TESTING; *WATER QUALITY

DESCRIPTIVE NOTE: 82P.

ABSTRACT: THIS DOCUMENT IS THE PRODUCT OF MORE THAN TWO YEARS OF RESEARCH AT GOVERNMENTAL, INDUSTRIAL, AND UNIVERSITY LABORATORIES TO DEVELOP A RELIABLE AND REPRODUCIBLE ALGAL ASSAY. AS A RESULT OF THIS EFFORT, THE ALGAL ASSAY PROCEDURE: BOTTLE TEST HAS BEEN REFINED SUFFICIENTLY TO BE OFFERED NOW FOR WIDER USE IN CONNECTION WITH EUTROPHICATION AND OTHER ALGAL PRODUCTION PROBLEMS. SECTIONS IN THIS GUIDE INCLUDE: PLANNING AND EVALUATION OF ALGAL ASSAYS; APPARATUS; SAMPLE COLLECTION, TRANSPORT, PREPARATION, AND STORAGE; SYNTHETIC ALGAL NUTRIENT MEDIUM; INOCULUM; TEST CONDITIONS; PROCEDURE; SPIKES; AND, DATA ANALYSIS AND INTERPRETATION.

AVAILABILITY: NATIONAL EUTROPHICATION RESEARCH PROGRAM, ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW008042

PUBLICATION DATE: DEC 60

TITLE: MELTON HILL RESERVOIR COMPREHENSIVE PLAN FOR LAND USE DEVELOPMENT.

DESCRIPTOR: *DAMS; *DEVELOPMENT; *ECONOMIC FACTORS; FEDERAL PROJECTS; *LAND USE; *MELTON HILL RESERVOIR; *NATURAL RESOURCES; *PLANNING; PROJECT PLANNING; *REGIONAL PLANNING; *RESERVOIRS; *TENNESSEE; *TVA; *WATER RESOURCES

DESCRIPTIVE NOTE: 92P.

ABSTRACT: IT IS THE PURPOSE OF THIS REPORT TO BRING TO ALL CONCERNED PARTIES AN AWARENESS OF THE NEED FOR LAND USE PLANNING. THE REPORT FOCUSES ON THE MELTON HILL DAM PROJECT (TENNESSEE) AND THE EFFORTS OF THE TENNESSEE VALLEY AUTHORITY AND RESEVOIR-AFFECTED CITIES AND COUNTIES TO PREPARE A FUTURE LAND USE PLAN BASED ON POPULATION PATTERNS, REGIONAL RESOURCES, AND LAND USE NEEDS.

AVAILABILITY: TENNESSEE VALLEY AUTHORITY, 258 DAYLIGHT BUILDING, KNOXVILLE, TN 37902

IRIS ACCESSION NUMBER: EW008043

PUBLICATION DATE: JUN 82

TITLE: UPGRADE A CURRENT COURSE ENTITLED "OPERATIONAL CONSIDERATIONS IN WASTEWATER TREATMENT PLANT DESIGN" AND FIELD TEST THE COURSE.

PERSONAL AUTHOR: COOPER, JOHN W.; AND OTHERS

DESCRIPTOR: *FACILITIES; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *PROGRAM VALIDATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 18P.

ABSTRACT: THIS PROGRAM WAS INITIATED WITH THE OVERALL OBJECTIVE OF UPGRADING AND THEN TESTING EXISTING COURSE

MATERIAL ON OPERATIONAL CONSIDERATIONS IN WASTEWATER TREATMENT PLANT DESIGN. EXISTING MATERIAL ALONG WITH NEW MATERIAL WAS USED TO UPGRADE THE STUDENT MANUAL. A MAJOR REVISION AND UPGRADING OF THE INSTRUCTOR'S MANUAL, INCLUDING A DETAILED INSTRUCTOR'S PRESENTATION GUIDE, WAS THEN PREPARED. EXISTING AND NEW SLIDES WERE EDITED FOR INCLUSION IN THE VISUAL AIDS PACKAGE ALONG WITH VIEWGRAPHS OF ALL FIGURES AND TABLES IN THE STUDENT MANUAL. FINALLY, THE COURSE WAS FIELD TESTED AT THE AREA TRAINING CENTER OF THE UNIVERSITY OF MASSACHUSETTS, AMHERST AND THE PRESENTATION EVALUATED. THE STUDENT MANUAL, INSTRUCTOR'S MANUAL AND VISUAL AIDS PACKAGE ARE ACCOMPANYING VOLUMES IN THIS REPORT.

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ABSTRACT: THIS ARTICLE DISCUSSES FIXED-FILM BIOLOGICAL PROCESSES AND CONCLUDES THAT THESE SYSTEMS ARE GAINING OVER CONVENTIONAL, ACTIVATED SLUDGE PROCESSES AT MUNICIPAL AS WELL AS INDUSTRIAL WASTEWATER TREATMENT PLANTS. THE DEVELOPMENT OF FIXED-FILM BIOLOGICAL PROCESSES, MEDIA MATERIALS, AND POTENTIAL ENERGY SAVINGS ARE EXAMINED.

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AUTHOR INDEX

ALLEN, C. E.
EW 005 596

ANDERSON, DON
EW 007 666

ANDERSON, DONALD M.
EW 007 632

ANDREWS, PAUL L.
EW 007 861

ARTWICK, BRUCE A.
EW 007 884

BAKER, RICHARD J.
EW 007 560

BALDWIN, F. L.
EW 005 599

BARFIELD, CARL S.
EW 005 600

BARRON, GRACE M.
EW 007 913

BATH, J. E.
EW 005 596

BAUER, DAVID H.
EW 007 424

BEILOCK, RICHARD
EW 007 911

BELL, CHIP R.
EW 006 840

BENEFIELD, LARRY D.
EW 007 815

BERNHARDT, HEINZ
EW 007 883

BIRD, C. W.
EW 005 598

BOURNE, JOHN R.
EW 007 806

BOWEN, GEORGE E.
EW 007 816
EW 007 817
EW 007 818

BOWEN, RON
EW 007 003

BOWERS, ETHEL MAY
EW 006 914

BOWMAN, JAMES O.
EW 007 677

BREITSAMETER, JOHN L.
EW 007 922

BREZNER, GERALD P.
EW 007 907

BROWNING, M. E.
EW 007 656

BRYANT, JAMES O.
EW 007 563

BURGH, JOHN
EW 007 552

BURNHAM, ROY A.
EW 007 788

CAMPBELL, JOHN
EW 007 559

CARLSON, R. R.
EW 007 567

CARNS, KEITH E.
EW 007 877

CATLIN, THOMAS S.
EW 007 921

CATROUX, C.
EW 007 661

CHAPMAN, PETER M.
EW 007 569

CHAU, ALFRED S. Y.
EW 007 809
EW 007 810
EW 007 811

CLARKE, FRANK H.
EW 007 805

CLAVEL, ROBERT L.
EW 007 923

CLAYTON, FLORENCE E.
EW 007 653

CLAYTON, GEORGE D.
EW 007 653

COMER, DOROTHY
EW 007 911

CONNELL, COLONEL NORMAN
EW 007 554

COOK, BEN
EW 007 553

COOPER, JOHN W.
EW 008 043

CORSSMIT, C. W.
EW 007 908

COX, STEPHEN B.
EW 007 670

CRIPPLE, GREGORY H.
EW 006 834

CROSSWHITE, WILLIAM M.
EW 007 853

CRUZ, EDWARD
EW 007 524

CULLINGS, ROBERT
EW 007 000

D'LTRI, FRANK M.
EW 007 825

DE RENZO, D. J.
EW 007 430

DEADRICK, DIANA
EW 007 943

DEMKE, KEITH A.
EW 007 671

DICK, RICHARD I.
EW 007 823

DICEORGIO, RICHARD M.
EW 007 942

DIX, H. M.
EW 007 652

EBERSBERGER, SUE A.
EW 006 837

ELLIOTT, ROY
EW 007 790

FETTER, C. W., JR.
EW 007 668

FINCAS, M. F.
EW 007 785

FIRESTONE, BRUCE M.
EW 007 863

FOX, J. BRUCE
EW 007 689

FOX, KIM
EW 007 881

FREEDMAN
EW 006 847

FRY, W. E.
EW 005 597

GALL, JOHN J.
EW 007 921

GANGAWARE, TIMOTHY
EW 007 816
EW 007 817
EW 007 818

GAUTHIER, E.
EW 007 783

GAYESKI, DIANE
EW 006 841

GEATING, JOHN
EW 007 416
EW 007 417

GENERKE, WILLIAM
EW 007 789

GENTRY, WILLIAM W.
EW 007 875

GERARDI, MICHAEL H.
EW 007 523

GILHAM, ROBERT W.
EW 007 791

GILL, S. D.
EW 007 783

GOOD, L. L.
EW 007 468

GRAHAM, M. J.
EW 007 859

GREELEY, S. DOUGLAS
EW 007 844

GREEN, D. D.
EW 007 908

GRIFFITH, FRED P., JR.
EW 007 912

GRIMESTAD, DWIGHT E.
EW 007 555

HAAS, CHARLES N.
EW 007 915

HAIMES, YACOV Y.
EW 007 871

HANKE, STEVE H.
EW 007 002

HARMON, BOBBIE
EW 007 469

HARVEY, JOHN C.
EW 007 872

HASIT, YAKIR
EW 007 823

HAYNES, DEAN L.
EW 005 601

HERSCH, PAUL
EW 007 462
EW 007 858

HONEYCUTT, FRANK C.
EW 007 464

HOOK, N. K., JR.
EW 007 551

HUCKER, T. W. C.
EW 007 661

HUDSON, H. E., JR.
EW 007 882

JAKUBOWSKI, W.
EW 007 654

JENKINGS, S. H.
EW 007 813

JOHNSON, RONALD L.
EW 007 917

JOHNSON, THOMAS M.
EW 007 072

KARNEY, PATRICK T.
EW 007 466

KARP, ANDREW W.
EW 007 670

KAUFMANN, ROBERT F.
EW 007 071

KECK, WILLIAM C.
EW 007 073

KING, PAUL H.
EW 007 879

KINZEL, RALPH
EW 007 786

KLEINPETER, JOSEPH
EW 007 804

KRISHNASWAMI, S. K.
EW 007 548

KUJAWA, EDWARD
EW 007 688

LAMBERT, CLAIRE
EW 007 642

LANG, MARTIN
EW 007 463

LAURIA, DONALD T.
EW 007 671

LEA, B.
EW 007 785

LIPPIATT, BARBARA C.
EW 007 909

LITCHFIELD, HARRY E.
EW 006 834

LOEHR, RAYMOND C.
EW 007 820

LOCSDON, CARY S.
EW 007 881

LONDON, W. BOYD
EW 007 464

LORENZ, WILLIAM T.
EW 007 556

LOWER, JAY R.
EW 007 876

LUKE, ROBERT A., JR.
EW 006 835

LYSYJ, IHOR
EW 007 570

MALONEY, FRANK E.
EW 007 899

MARK, HARRY B.
EW 007 655

MARX, RAYMOND J.
EW 006 842

MATTHESS, GEORGE
EW 007 872

MATTHEWS, ROBERT B.
EW 007 910

MATTSON, JAMES S.
EW 007 655

MCCORMICK, RICHARD FORD
EW 007 879

MEEK, JAMES
EW 007 833

MILLER, GEORGE L.
EW 007 688

MOORE, JAMES F.
EW 007 862

MORISON, I. C.
EW 007 639

MURPHY, CORNELIUS B.
EW 007 831

NADLER, LEN
EW 006 836

NELSON, MICHAEL
EW 007 527

NEWMAN, SANDY C.
EW 007 901

NEWSOM, RON
EW 006 839

OLECKNO, WILLIAM A.
EW 007 675
EW 007 676

PAHREN, H.
EW 007 654

PALMENBERG, ROGER E.
EW 007 001

PEDERSON, DARRYLL
EW 007 790

PERRY, DONALD L.
EW 007 843

PETERS, GORDON
EW 007 687

PETERSON, WINFIELD A.
EW 007 525

POND, STEVE
EW 007 784

POPKIN, BARNEY P.
EW 007 550

QURESHI, NAEEM
EW 007 880

RICE, R. C.
EW 007 656

RICH, LINVIL C.
EW 007 465
EW 007 924

ROBERTS, SUSAN A.
EW 007 548

ROZICH, ALAN F.
EW 007 565

RUSHTON, H.
EW 007 786

RYAN, J. A.
EW 007 639

RYAN, JOHN R.
EW 007 820

RYMELL, ROBERT C.
EW 006 839

SANTELMANN, P. W.
EW 005 599

SCALISE, MICHAEL A.
EW 007 557
EW 007 923

SCHINDLER-RAINMAN, EVA
EW 006 833

SCHNEIDER, GEORGIA E.
EW 007 878

SCHNELL, H.
EW 007 883

SCHWEITZER, GLENN E.
EW 007 918

SCOTT, DOW
EW 007 943

SENDLEIN, LYLE V. A.
EW 007 070

SHEIMAN, DEBORAH A.
EW 007 667

SHIPMAN, HAROLD R.
EW 007 673

SLAPIK, MICHAEL A.
EW 007 566

SOLOMON, BEN
EW 006 914

SPRINGER, JUDY
EW 006 838

STEBBINS, WAYNE
EW 007 558

STEFAN, H. C.
EW 007 812

STEGEMAN, GARY L.
EW 007 963

STEGMAN, CHARLES
EW 007 878

STIMAC, JERRY L.
EW 005 600

STINSON, KARL B.
EW 007 877

STOVER, ENOS L.
EW 007 004

SYMONS, JAMES M.
EW 007 842

SZUMSKI, DANIEL S.
EW 007 568

TAO, PENCHIH
EW 007 914

TAYLOR, T. E.
EW 007 787

THOMASON, I. J.
EW 005 598

THURSTON, H. D.
EW 005 597

TIPPIN, DAVID L.
EW 007 913

TRINKA, WALTER C.
EW 007 788

TVER, DAVID F.
EW 007 659

VAN DEUSEN, ROBERT H.
EW 007 467

VAN LOON, JON C.
EW 007 898

VANCOTT, WHITFIELD
EW 007 862

VIVONA, MORRIS A.
EW 007 526
EW 007 690

WAGNER, E. G.
EW 007 882

WALTERS, J. K.
EW 007 562

WEAVER, LEO
EW 007 907

WEBER, STEPHEN F.
EW 007 909

WEBSTER, SHIRLEY
EW 007 910

WELLING, LAWRENCE G.
EW 007 901

WENDERS, JOHN T.
EW 007 549

WETZGROVE, ROBERT L.
EW 007 555

WEXLER, PHILIP
EW 007 648

WHALEN, GARY A.
EW 007 526
EW 007 690

WHEELER, WILLIAM
EW 007 524

WICKS, FREDERICK W.
EW 006 842

WILSON, L. G.
EW 007 669

WINT, A.
EW 007 662

WITT, VICENTE M.
EW 007 672

WITTMANN, JOHN W.
EW 007 470

YAZICIGIL, HASAN
EW 007 670

YONKER, STEPHEN A.
EW 007 861

SUBJECT INDEX

*ABSTRACTS	(9)	EW007826	EW007827	EW007828	EW007829	EW007830	EW007835	EW007836
	EW007837	EW007838						
ABSTRACTS	(8)	EW007839	EW007840	EW007893	EW007894	EW007895	EW007896	EW007897
	EW007898							
*ACCOUNTING	(1)	EW006837						
*ACHIEVEMENT	(1)	EW007467						
*ACTIVATED CARBON	(1)	EW007843						
ACTIVATED CARBON	(1)	EW007867						
*ACTIVATED SLUDGE	(1)	EW007822						
ACTIVATED SLUDGE	(1)	EW007821						
*ADMINISTRATION	(4)	EW007462	EW007463	EW007547	EW007903			
*ADULT EDUCATION	(3)	EW006834	EW006835	EW006914				
*ADULT LEARNING	(1)	EW006839						
*AERATION	(4)	EW007526	EW007698	EW007786	EW007924			
AERATION	(1)	EW007830						
AERIAL PHOTOGRAPHY	(1)	EW007918						
*AEROSOLS	(1)	EW007654						
AESTHETICS	(1)	EW007552						
*AFFECTIVE BEHAVIOR	(1)	EW007729						
*AGRICULTURE	(2)	EW005597	EW007661					
AGRICULTURE	(1)	EW005596						
*AIR POLLUTION	(2)	EW007839	EW007867					
*AIR POLLUTION CONTROL	(1)	EW007652						
AIR POLLUTION CONTROL	(1)	EW007642						
*AIR QUALITY	(1)	EW007918						
*ALASKA	(2)	EW007570	EW007908					
*ALGAE	(3)	EW007565	EW007883	EW008036				
*ALTERNATIVE SYSTEMS	(1)	EW007424						
*ALTERNATIVE TECHNOLOGY	(4)	EW007644	EW007799	EW007843	EW007892			
*AMMONIA	(1)	EW007568						
*ANALYTICAL CHEMISTRY	(1)	EW007655						
*ANALYTICAL TECHNIQUES	(22)	EW007001	EW007068	EW007073	EW007650	EW007655	EW007688	EW007739
	EW007805	EW007808	EW007809	EW007810	EW007811	EW007829	EW007833	EW007865
	EW007869	EW007871	EW007889	EW007890	EW007915	EW007969	EW007978	

*ANIMAL WASTES	(1)	EW007661						
*ANISOTROPIC AQUIFERS	(1)	EW007668						
*ANNOTATED BIBLIOGRAPHIES	(18)	EW007642	EW007826	EW007827	EW007828	EW007829	EW007830	EW007835
	EW007836	EW007837	EW007838	EW007839	EW007840	EW007893	EW007894	EW007895
	EW007896	EW007897	EW007898					
*APPARENT RESISTIVITY	(1)	EW007073						
*APPLIED SCIENCE	(1)	EW007665						
*APPRENTICESHIPS	(1)	EW007971						
*APPROPRIATE TECHNOLOGY	(1)	EW007670						
*AQUATIC ENVIRONMENTS	(6)	EW007568	EW007801	EW007824	EW007965	EW007650	EW007895	
*AQUIFERS	(1)	EW007068						
*ARCHITECTURE	(1)	EW007917						
*ARID ZONES	(1)	EW007071						
*ARIZONA	(1)	EW007549						
*ASSAYS	(1)	EW008036						
*ASSESSMENT	(2)	EW007799	EW007902					
*ATTITUDES	(3)	EW007729	EW007875	EW007894				
AUDIODISC RECORDINGS	(1)	EW007723						
*AUDIO EQUIPMENT	(1)	EW007723						
AUDIOTAPE RECORDERS	(1)	EW007723						
*AUDIOVISUAL AIDS	(9)	EW007251	EW007648	EW007657	EW007665	EW007721	EW007722	EW007723
	EW007724	EW007737						
AUDIOVISUAL AIDS	(1)	EW006842						
*BACKWASHING	(1)	EW007880						
*BALLAST	(1)	EW007570						
*BASINS	(1)	EW007567						
*BEHAVIOR	(2)	EW006914	EW007467					
*BENCH SCALE TESTS	(1)	EW007882						
*BEST MANAGEMENT PRACTICES	(2)	EW007638	EW007831					
*BIBLIOGRAPHIES	(11)	EW007416	EW007417	EW007648	EW007818	EW007822	EW007824	EW007866
	EW007867	EW007868	EW007869	EW007870				
BIBLIOGRAPHIES	(1)	EW007823						
*BILLING SYSTEM	(1)	EW007551						

*BIOCHEMICAL OXYGEN DEMAND	(1)	EW007897						
*BIODEGRADATION	(2)	EW007416	EW007417					
*BIOINDICATORS	(1)	EW007839						
BIOLOGICAL ACTIVATED CARBON	(1)	EW007656						
*BIOLOGICAL CONTROLS	(2)	EW005597	EW005600					
BIOLOGICAL INFLUENCES	(1)	EW006838						
BIOLOGICAL SCIENCES	(1)	EW007801						
*BIOLOGICAL TREATMENT	(2)	EW007555	EW008047					
BIOLOGICAL TREATMENT	(1)	EW007868						
*BIOLOGY	(3)	EW007801	EW007825	EW007839				
BIOLOGY	(1)	EW007893						
BOOKS	(1)	EW007648						
*BOTANY	(1)	EW007825						
*BRAZIL	(1)	EW007671						
BRIDGES	(1)	EW007524						
*BUBBLE DIFFUSERS	(1)	EW007923						
*BUDGETING	(1)	EW007913						
BUDGETING	(1)	EW007464						
*BULKING	(2)	EW007555	EW007565					
*BULLETIN BOARDS	(1)	EW007718						
*BUOYS	(1)	EW007785						
*BUSINESS	(1)	EW007649						
*BUSINESS OPPORTUNITIES	(1)	EW007556						
*CALCULATORS	(2)	EW007801	EW007805					
*CALIFORNIA	(1)	EW007877						
CARBAMATES	(1)	EW007811						
CARBON ADSORPTION	(1)	EW007815						
*CAREER DEVELOPMENT	(1)	EW007966						
*CAREER EDUCATION	(1)	EW007966						
*CASE STUDIES	(57)	EW006996	EW006997	EW006998	EW006999	EW007002	EW007003	EW007004
	EW007071	EW007466	EW007468	EW007523	EW007524	EW007526	EW007527	EW007547
	EW007549	EW007551	EW007552	EW007553	EW007554	EW007557	EW007564	EW007565
	EW007570	EW007670	EW007671	EW007676	EW007677	EW007687	EW007688	EW007689
	EW007783	EW007784	EW007786	EW007787	EW007788	EW007791	EW007817	EW007831
	EW007844	EW007858	EW007860	EW007862	EW007877	EW007880	EW007882	EW007887

	EW007868 EW007923	EW007879 EW007925	EW007892	EW007908	EW007912	EW007913	EW007918	EW007922
CASE STUDIES	(2)	EW007879	EW007883					
*CENTRIFUGAL PUMPS	(1)	EW007657						
*CESSPOOLS	(1)	EW007821						
*CHALKBOARDS	(1)	EW007726						
*CHANGING ATTITUDES	(1)	EW006833						
*CHEMICAL ANALYSIS	(11) EW007829	EW007655 EW007865	EW007739 EW007890	EW007808 EW007969	EW007809	EW007810	EW007811	EW007815
CHEMICAL ANALYSIS	(2)	EW007568	EW007872					
*CHEMICAL CONTROLS	(2)	EW005597	EW005600					
CHEMICAL EQUILIBRIUM	(1)	EW007815						
*CHEMICAL INDEXES	(1)	EW007417						
*CHEMICAL INTERFERENCE	(1)	EW007416						
CHEMICAL REACTIONS	(3)	EW007416	EW007417	EW007815				
*CHEMICALS	(3)	EW007416	EW007417	EW007659				
CHEMICALS	(1)	EW007827						
*CHEMICAL TREATMENT	(1)	EW007883						
CHEMICAL TREATMENT	(1)	EW007882						
*CHEMISTRY	(4)	EW007655	EW007805	EW007815	EW007865			
CHEMISTRY	(8) EW007895	EW007416	EW007809	EW007810	EW007811	EW007889	EW007890	EW007893
*CHLORINATION	(1)	EW007650						
CHLORINATION	(1)	EW007830						
*CHLORINE	(1)	EW006996						
*CHLORINE RESIDUAL ANALYZERS	(1)	EW006996						
CHROMATOGRAPHY	(2)	EW007808	EW007969					
*CITIZEN PARTICIPATION	(3)	EW007667	EW007816	EW007817				
*CLEANING	(2)	EW007687	EW007861					
*CLEAN LAKES PROGRAM	(1)	EW007819						
*CLEAN WATER ACT	(2)	EW007667	EW007799					
*COAGULATION	(1)	EW007887						
COAGULATION	(1)	EW007879						
COASTAL AREAS	(1)	EW007554						

*COASTAL ZONES	(1)	EW007784
*COGNITIVE MEASUREMENT	(1)	EW007728
*COLLEGE PROGRAMS	(1)	EW007942
*COLLOIDS	(1)	EW007566
COLLOIDS	(1)	EW007815
*COMBINED SEWERS	(1)	EW007859
*COMMUNICATION SKILLS	(2)	EW006834 EW007712
*COMMUNITY INVOLVEMENT	(1)	EW007894
*COMMUNITY RESOURCES	(1)	EW007717
*COMMUNITY WATER SYSTEMS	(1)	EW007676
*COMPETENCIES	(1)	EW007963
*COMPETENCY BASED EDUCATION	(40)	EW007692 EW007693 EW007694 EW007695 EW007696 EW007697 EW007698 EW007699 EW007700 EW007701 EW007702 EW007703 EW007704 EW007705 EW007706 EW007707 EW007708 EW007709 EW007710 EW007711 EW007712 EW007713 EW007714 EW007715 EW007716 EW007717 EW007718 EW007719 EW007720 EW007721 EW007722 EW007723 EW007724 EW007725 EW007726 EW007728 EW007729 EW007730 EW007731 EW007732
COMPETENCY BASED EDUCATION	(1)	EW007727
*COMPLIANCE	(1)	EW007900
*COMPOSTING	(1)	EW007527
*COMPUTER APPLICATIONS	(8)	EW007525 EW007551 EW007639 EW007688 EW007804 EW007844 EW007884 EW007913
COMPUTER APPLICATIONS	(2)	EW007001 EW007917
*COMPUTER GRAPHICS	(1)	EW007917
*COMPUTER PROGRAMS	(1)	EW007001
*COMPUTERS	(7)	EW007525 EW007804 EW007806 EW007844 EW007859 EW007884 EW007917
COMPUTERS	(1)	EW007685
*CONCEPTS	(1)	EW007714
*CONFERENCE PROCEEDINGS	(9)	EW007654 EW007807 EW007812 EW007813 EW007825 EW007833 EW007867 EW007888 EW007889
*CONSERVATION	(7)	EW007002 EW007523 EW007549 EW007559 EW007891 EW007909 EW007912
*CONSTRUCTION	(11)	EW007001 EW007524 EW007644 EW007670 EW007788 EW007798 EW007866 EW007875 EW007876 EW008031 EW008032
CONSTRUCTION	(1)	EW007892
*CONSULTANTS	(1)	EW006833

*CONTAMINANTS	(2)	EW007925 EW008030
*CONTAMINATION	(5)	EW007672 EW007673 EW007548 EW007889 EW007896
CONTAMINATION	(3)	EW007670 EW007671 EW007872
*CONTINUING EDUCATION	(1)	EW007942
*CONTRACTED SERVICES	(1)	EW007649
*CONTRACTORS	(2)	EW007875 EW007876
*CONTRACTS	(1)	EW007964
*CORROSION	(1)	EW007469
CORROSION	(1)	EW007631
*CORROSION CONTROL	(2)	EW007469 EW007651
*COST EFFECTIVENESS	(21) EW007862 EW007688 EW007685	EW007003 EW007424 EW007326 EW007673 EW007689 EW007787 EW007831 EW007863 EW007862 EW007916 EW007923 EW007924 EW007002 EW007465 EW007323 EW007559 EW007557 EW007558 EW007569
COST EFFECTIVENESS	(4)	EW007820 EW007838 EW007917 EW006837
*COSTS	(15) EW007904	EW007671 EW007798 EW007799 EW007820 EW007823 EW007838 EW007866 EW007905 EW007910 EW007911 EW007912 EW007914 EW007922 EW007924
COSTS	(4)	EW007863 EW007868 EW007869 EW007876
*COURSE CONTENT	(1)	EW007981
*COURSE DESCRIPTIONS	(1)	EW007637
*COURSE OBJECTIVES	(1)	EW007693
*CRITERIA	(1)	EW007876
*CULTURAL CONTROLS	(2)	EW005597 EW005600
*CURRICULUM	(7)	EW006841 EW007637 EW007694 EW007695 EW007696 EW007981 EW007963
*CURRICULUM DEVELOPMENT	(5)	EW007692 EW007693 EW007697 EW007699 EW007963
CURRICULUM DEVELOPMENT	(24) EW007709 EW007718 EW007726	EW007700 EW007701 EW007704 EW007705 EW007706 EW007707 EW007708 EW007710 EW007711 EW007713 EW007714 EW007715 EW007716 EW007717 EW007719 EW007720 EW007721 EW007722 EW007723 EW007724 EW007725
*DAMAGE PREVENTION	(1)	EW007789
*DAMS	(2)	EW007812 EW008042
DAMS	(1)	EW007638
DATA ACQUISITION	(1)	EW007784

*DATA ANALYSIS	(7)	EW007662 EW007668 EW007673 EW007798 EW007804 EW007820 EW007915
*DATA BASES	(1)	EW007551
DATA BASES	(1)	EW007648
*DATA COLLECTION	(4)	EW007551 EW007790 EW007801 EW007840
DATA COLLECTION	(1)	EW007904
*DATA INTERPRETATION	(1)	EW007568
*DATA MANAGEMENT	(1)	EW007525
*DATA PROCESSING	(2)	EW007805 EW007806
DATA PROCESSING	(1)	EW007804
*DECISION MAKING	(3)	EW007639 EW007907 EW007943
*DEFLOCCULATION	(1)	EW007555
*DEMONSTRATIONS (EDUCATIONAL)	(2)	EW007713 EW007714
*DESIGN	(30)	EW006999 EW007000 EW007001 EW007004 EW007430 EW007465 EW007468 EW007478 EW007524 EW007526 EW007552 EW007554 EW007564 EW007644 EW007662 EW007698 EW007786 EW007787 EW007812 EW007820 EW007823 EW007830 EW007838 EW007879 EW007880 EW007884 EW007910 EW007924 EW007925 EW008047
DESIGN	(9)	EW007674 EW007798 EW007807 EW007867 EW007868 EW007869 EW007892 EW007908 EW007923
DESIGN CRITERIA	(1)	EW007644
*DETECTION	(2)	EW007687 EW007905
DETROIT RIVER	(1)	EW007859
*DEVELOPED NATIONS	(1)	EW007642
*DEVELOPING NATIONS	(1)	EW007814
*DEVELOPMENT	(3)	EW007841 EW007894 EW008042
*DEWATERING	(1)	EW007560
*DIATOMACEOUS EARTH	(1)	EW007881
*DICTIONARIES	(1)	EW007659
*DIRECT FILTRATION	(3)	EW007879 EW007882 EW007883
*DIRECTORIES	(1)	EW007648
*DISCHARGES	(1)	EW007905
DISEASE	(1)	EW007654
*DISEASE CONTROL	(3)	EW005597 EW006847 EW007654
DISEASE CONTROL	(1)	EW007814

*DISINFECTION	(3)	EW007004	EW007650	EW007656				
*DISPERSED FLOC	(1)	EW007555						
*DISSOLVED OXYGEN	(3)	EW007557	EW007565	EW007923				
DRAFTING	(1)	EW007917						
*DRINKING WATER	(21)	EW006997	EW007543	EW007632	EW007672	EW007675	EW007676	EW007842
	EW007843	EW007878	EW007881	EW007887	EW007888	EW007889	EW007890	EW007906
	EW007905	EW007966	EW007969	EW007970	EW007972	EW008030		
DRINKING WATER	(2)	EW006847	EW007894					
*DROUGHT	(2)	EW007524	EW007858					
DROUGHT	(2)	EW007523	EW007844					
DYES	(2)	EW007867	EW007868					
*ECOLOGICAL FACTORS	(2)	EW005596	EW007552					
*ECOLOGY	(7)	EW005598	EW007639	EW007652	EW007659	EW007801	EW007837	EW007895
ECOLOGY	(3)	EW005601	EW007655	EW007812				
*ECONOMIC FACTORS	(17)	EW005596	EW007464	EW007468	EW007527	EW007549	EW007556	EW007671
	EW007798	EW007823	EW007866	EW007909	EW007910	EW007911	EW007912	EW007921
	EW007924	EW008042						
ECONOMIC FACTORS	(3)	EW007463	EW007566	EW007908				
*ECONOMIC IMPACT	(2)	EW007835	EW007836					
*ECONOMICS	(4)	EW007667	EW007833	EW007835	EW007836			
*ECOSYSTEM MANAGEMENT	(1)	EW005601						
*ECOSYSTEMS	(1)	EW005601						
*EDUCATIONAL GOALS	(1)	EW006836						
*EDUCATIONAL NEEDS	(1)	EW007901						
*EDUCATIONAL OBJECTIVES	(2)	EW006835	EW006840					
*EDUCATIONAL PROGRAMS	(4)	EW006840	EW006841	EW007632	EW007942			
EDUCATIONAL PROGRAMS	(1)	EW006837						
*EDUCATIONAL RESEARCH	(1)	EW006838						
*EDUCATIONAL TECHNOLOGY	(1)	EW006842						
*EFFLUENTS	(8)	EW007552	EW007557	EW007566	EW007567	EW007570	EW007662	EW007739
	EW007904							
EFFLUENTS	(2)	EW007523	EW007866					
*ELECTRICAL SYSTEMS	(1)	EW007916						
*ELECTRICITY	(1)	EW007665						
*EMERGENCIES	(1)	EW007877						

EMERGENCIES	(1)	EW007524						
*EMPLOYEE RELATIONS	(1)	EW007913						
EMPLOYEE RELATIONS	(1)	EW006837						
*EMPLOYER-EMPLOYEE RELATIONS	(1)	EW007467						
*EMPLOYMENT	(1)	EW007563						
*ENERGY	(1)	EW007799						
ENERGY	(1)	EW007823						
*ENERGY CONSERVATION	(2)	EW007923	EW008047					
*ENGINEERING	(6)	EW007424	EW007463	EW007662	EW007804	EW007812	EW007917	
ENGINEERING	(4)	EW006839	EW007470	EW007838	EW007924			
*ENGINEERS	(1)	EW007971						
*ENGLAND	(2)	EW007642	EW007662					
*ENTOMOLOGY	(1)	EW005600						
*ENVIRONMENT	(3)	EW007642	EW007652	EW007659				
ENVIRONMENT	(1)	EW005601						
*ENVIRONMENTAL EDUCATION	(1)	EW007737						
*ENVIRONMENTAL IMPACTS	(5)	EW007899	EW007904	EW007424	EW007650	EW007827		
*ENVIRONMENTAL INFLUENCES	(3)	EW007639	EW007652	EW007837				
ENVIRONMENTAL INFLUENCES	(2)	EW007659	EW007662					
*ENVIRONMENTAL PROTECTION AGENCY	(5)	EW007568	EW007569	EW007900	EW007964	EW007966		
*ENVIRONMENTAL RESEARCH	(1)	EW007639						
*ENVIRONMENTAL TECHNICIANS	(1)	EW007901						
*ENVIRONMENTAL TECHNOLOGY	(1)	EW007918						
EPIDEMIOLOGY	(1)	EW007654						
*EQUALIZATION BASINS	(1)	EW007553						
*EQUIPMENT	(45)	EW006997	EW007000	EW007003	EW007424	EW007469	EW007470	EW007554
	EW007559	EW007560	EW007657	EW007665	EW007666	EW007687	EW007688	EW007689
	EW007720	EW007722	EW007723	EW007783	EW007785	EW007787	EW007788	EW007789
	EW007790	EW007791	EW007804	EW007807	EW007827	EW007828	EW007843	EW007844
	EW007861	EW007865	EW007879	EW007884	EW007914	EW007916	EW007922	EW007923
	EW007924	EW007925	EW008031	EW008032	EW008036	EW008047		
EQUIPMENT	(18)	EW006996	EW007465	EW007468	EW007526	EW007552	EW007553	EW007557
	EW007564	EW007656	EW007690	EW007721	EW007724	EW007808	EW007859	EW007860
	EW007862	EW007868	EW007880					
*EQUIPMENT MAINTENANCE	(2)	EW008031	EW008032					

*ESTUARIES	(1)	EW007895						
EUTROPHICATION	(3)	EW007883	EW007893	EW008036				
*EVALUATION	(13)	EW007002	EW007424	EW007550	EW007568	EW007632	EW007727	EW007730
	EW007731	EW007732	EW007841	EW007943	EW007967	EW007972		
EVALUATION	(7)	EW006835	EW007549	EW007551	EW007728	EW007729	EW007810	EW007833
*EVALUATION METHODS	(4)	EW007727	EW007728	EW007729	EW007732			
EVALUATION METHODS	(2)	EW007730	EW007731					
*EXHIBITS	(1)	EW007718						
*EXTENSION	(2)	EW005596	EW005598					
*FACILITIES	(32)	EW006997	EW006998	EW006999	EW007000	EW007004	EW007464	EW007465
	EW007469	EW007552	EW007553	EW007554	EW007564	EW007567	EW007649	EW007656
	EW007671	EW007689	EW007786	EW007787	EW007788	EW007798	EW007820	EW007858
	EW007860	EW007862	EW007875	EW007892	EW007912	EW007922	EW007924	EW007925
	EW008043							
FACILITIES	(6)	EW007666	EW007677	EW007739	EW007859	EW007900	EW008047	
*FATTY ACIDS	(1)	EW007565						
*FEDERAL GOVERNMENT	(1)	EW007966						
FEDERAL GOVERNMENT	(1)	EW007652						
*FEDERAL LEGISLATION	(1)	EW007652						
FEDERAL LEGISLATION	(1)	EW007873						
*FEDERAL PROGRAMS	(5)	EW007638	EW007667	EW007675	EW007842	EW007873		
FEDERAL PROGRAMS	(1)	EW007676						
FEDERAL PROJECTS	(1)	EW008042						
*FEDERAL ROLE	(1)	EW005596						
*FERTILIZER	(1)	EW007838						
*FIELD STUDIES	(1)	EW007801						
FIELD TESTS	(1)	EW007825						
*FIELD TRIPS	(1)	EW007698						
*FILMS	(1)	EW007722						
*FILMSTRIPS	(1)	EW007721						
*FILTERS	(5)	EW007470	EW007559	EW007560	EW007879	EW007880		
FILTERS	(1)	EW007881						
*FILTRATION	(5)	EW007664	EW007879	EW007881	EW007882	EW007887		
FILTRATION	(1)	EW007883						
*FINANCIAL PLANNING	(1)	EW007464						

*FIRE HYDRANTS	(1)	EW007651		
*FIRE PROTECTION	(1)	EW007908		
FISH	(1)	EW007650		
*FISHERIES	(1)	EW007568		
*FIXED-FILM BIOLOGICAL PROCESSES	(1)	EW008047		
FLANNEL BOARDS	(1)	EW007719		
*FLIP CHARTS	(1)	EW007726		
FLOCCULATION	(1)	EW007879		
*FLORIDA	(1)	EW007913		
*FLOTATION	(1)	EW007566		
FLOTATION	(1)	EW007468		
*FLOW	(1)	EW007737		
*FLOW CONTROL	(1)	EW007553		
*FLUIDIZATION RATES	(1)	EW007889		
*FLUORIDE	(1)	EW007970		
*FOAMING	(1)	EW007566		
*FOOD PRODUCTION	(2)	EW005596	EW005599	
*FOODS	(1)	EW006047		
FORCE MAINS	(1)	EW007526		
*FORECASTING	(1)	EW007649		
*FOREIGN COUNTRIES	(3)	EW007670	EW007671	EW007673
*FORESTRY	(1)	EW007639		
FUELS	(1)	EW007659		
*FUNDING	(1)	EW007464		
FUNDING	(1)	EW007888		
GALVANIZED ZINC	(1)	EW007469		
*GALVANIZING	(1)	EW007469		
*GATE VALVES	(1)	EW007000		
*GEOCHEMISTRY	(1)	EW007872		
*GEOLOGY	(2)	EW007970	EW007903	
GEOLOGY	(1)	EW007869		
*GEOPHYSICS	(1)	EW007970		

GLOBAL APPROACH	(2)	EW007642 EW007838
*GOVERNMENT PUBLICATIONS	(1)	EW007642
*GOVERNMENT ROLE	(1)	EW007652
*GRADES	(1)	EW007731
*GRADING	(1)	EW007731
GRADUATE PROGRAMS	(1)	EW007648
*GRANT PROGRAMS	(1)	EW007967
*GRANTS	(1)	EW007799
GRANTS	(1)	EW007892
*GRAPHIC DESIGN	(1)	EW007917
*GROUNDWATER	(16) EW007824 EW007963	EW007069 EW007070 EW007071 EW007073 EW007548 EW007790 EW007791 EW007837 EW007838 EW007872 EW007889 EW007896 EW007903 EW007925
GROUNDWATER	(3)	EW007638 EW007644 EW007667
*GROUNDWATER FLOW	(1)	EW007068
*GROUP DISCUSSION	(1)	EW007699
*GUATEMALA	(1)	EW007670
*GUIDELINES	(8) EW007900	EW007558 EW007559 EW007638 EW007644 EW007672 EW007739 EW007873
*GUIDES	(10) EW007964	EW007555 EW007648 EW007784 EW007801 EW007805 EW007884 EW007963 EW008031 EW008032
GUIDES	(1)	EW007806
*HANDBOOKS	(4)	EW006847 EW007821 EW007841 EW007891
HAULING	(1)	EW007468
*HAZARDOUS MATERIALS	(3)	EW007659 EW007873 EW007877
HAZARDOUS MATERIALS	(1)	EW007653
*HAZARDOUS SUBSTANCES	(1)	EW007430
*HAZARDOUS WASTES	(1)	EW007071
*HEALTH	(1)	EW007814
HEALTH	(3)	EW007650 EW007654 EW007655
*HEALTH EFFECTS	(1)	EW008030
*HEAVY METALS	(1)	EW007566
*HERBICIDES	(1)	EW005599

183

HERBICIDES	(2)	EW007810	EW007811					
*HIGHER EDUCATION	(2)	EW006596	EW006841					
HIGHER EDUCATION	(1)	EW007648						
*HISTORY	(1)	EW007675						
HISTORY	(1)	EW006600						
*HOME UNITS	(1)	EW007843						
HOMEWORK	(1)	EW007703						
HOUSING	(1)	7642						
*HUMAN DEVELOPMENT	(1)	6838						
HUMAN FACTORS ENGINEERING	(1)	EW007916						
*HUMAN RESOURCES	(2)	EW006837	EW007717					
*HUMAN RESOURCES DEVELOPMENT	(2)	EW006839	EW006840					
*HYDRANTS	(1)	EW007651						
*HYDRAULICS	(2)	EW007668	EW007670					
HYDRAULICS	(1)	EW007666						
*HYDROCARBONS	(1)	EW007670						
*HYDROGEOLOGY	(1)	EW007790						
HYDROGEOLOGY	(1)	EW007820						
HYDROLOGIC FACTORS	(1)	EW007903						
*HYDROLOGY	(7)	EW007668	EW007969	EW007970	EW007971	EW007638	EW007972	EW007993
HYDROLOGY	(2)	EW007548	EW007567					
*HYGIENE	(2)	EW006847	EW007814					
*ILLINOIS	(2)	EW007557	EW007632					
ILLUMINATION SYSTEMS	(1)	EW007916						
*INCENTIVES	(1)	EW006836						
INCENTIVES	(1)	EW007467						
INCINERATION	(2)	EW007662	EW007830					
*INDEXES	(1)	EW007417						
*INDIANA	(1)	EW007676						
*INDIVIDUAL DIFFERENCES	(2)	EW007711	EW007715					
*INDIVIDUALIZED INSTRUCTION	(2)	EW007701	EW007725					

*INDUSTRIAL HYGIENE	(1)	EW007653						
*INDUSTRIAL WASTES	(9)	EW007662	EW007786	EW007822	EW007829	EW007867	EW007868	EW007869
	EW007897	EW007968						
*INDUSTRIAL WASTEWATER	(2)	EW007430	EW007873					
*INDUSTRY	(10)	EW007430	EW007556	EW007649	EW007652	EW007656	EW007659	EW007826
	EW007835	EW007836	EW007873					
INDUSTRY	(4)	EW007644	EW007653	EW007662	EW007667			
*INFILTRATION	(1)	EW007567						
*INFORMATION SERVICES	(1)	EW007551						
*INFORMATION SOURCES	(1)	EW007648						
*INJECTION	(1)	EW007903						
*INJECTION WELLS	(1)	EW007644						
*INORGANIC COMPOUNDS	(1)	EW007808						
*INSECT CONTROL	(1)	EW005600						
INSECTICIDES	(1)	EW007809						
*INSECT PESTS	(1)	EW005600						
*INSTITUTIONAL BARRIERS	(2)	EW007816	EW007817					
INSTITUTIONAL BARRIERS	(1)	EW007818						
*INSTRUCIONAL IMPROVEMENT	(1)	EW007693						
*INSTRUCTION	(47)	EW006834	EW006835	EW006838	EW006839	EW006842	EW006914	EW007632
	EW007692	EW007693	EW007694	EW007695	EW007696	EW007697	EW007698	EW007699
	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706	EW007707
	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007714	EW007715
	EW007716	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722	EW007723
	EW007724	EW007725	EW007726	EW007728	EW007729	EW007730	EW007731	EW007732
INSTRUCTION	(2)	EW006841	EW007727					
*INSTRUCTIONAL IMPROVEMENT	(28)	EW007692	EW007694	EW007695	EW007696	EW007697	EW007698	EW007699
	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706	EW007707
	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007714	EW007716
	EW007728	EW007729	EW007730	EW007731	EW007732			
INSTRUCTIONAL IMPROVEMENT	(12)	EW007715	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722
	EW007723	EW007724	EW007725	EW007726	EW007727			
*INSTRUCTIONAL MATERIALS	(73)	EW006842	EW006914	EW007251	EW007655	EW007657	EW007664	EW007665
	EW007666	EW007692	EW007693	EW007694	EW007695	EW007696	EW007697	EW007698
	EW007699	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706
	EW007707	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007714
	EW007715	EW007716	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722
	EW007723	EW007724	EW007725	EW007726	EW007727	EW007728	EW007729	EW007730
	EW007731	EW007732	EW007737	EW007801	EW007805	EW007806	EW007808	EW007809
	EW007810	EW007811	EW007815	EW007871	EW007872	EW007884	EW007963	EW007964
	EW007965	EW007966	EW007968	EW007969	EW007970	EW007971	EW007972	EW008031
	EW008032	EW008043						

*INSTRUMENTATION	(9)	EW006996	EW007655	EW007688	EW007790	EW007805	EW007806	EW007840
	EW007865	EW007884						
INSTRUMENTATION	(2)	EW007525	EW007889					
*INTEGRATED PEST MANAGEMENT	(5)	EW005596	EW005597	EW005598	EW005599	EW005601		
*INTERCEPTORS	(1)	EW007860						
*INTERDISCIPLINARY APPROACH	(1)	EW005598						
*INTERFACING	(1)	EW007884						
*INTERIOR COATINGS	(1)	EW007651						
*INTERNATIONAL PROGRAMS	(1)	EW007672						
*IOWA	(1)	EW007637						
*IRRIGATION	(3)	EW007825	EW007837	EW007838				
*JOB ANALYSIS	(1)	EW006836						
*JOB SKILLS	(2)	EW006833	EW006839					
JOB SKILLS	(1)	EW006841						
*KECK METHOD	(1)	EW007073						
*KNOWLEDGE	(2)	EW006833	EW007728					
*LABORATORIES	(2)	EW007704	EW007806					
*LABORATORY AIDS	(1)	EW007806						
*LABORATORY EQUIPMENT	(2)	EW007688	EW008036					
*LABORATORY MANUALS	(1)	EW007739						
*LABORATORY PROCEDURES	(8)	EW007688	EW007739	EW007801	EW007805	EW007808	EW007915	EW007965
	EW008036							
*LABORATORY TECHNIQUES	(7)	EW007808	EW007809	EW007810	EW007811	EW007865	EW007969	EW007970
LABORATORY TECHNIQUES	(1)	EW007739						
LABORATORY TESTS	(1)	EW007828						
*LABOR COSTS	(1)	EW007913						
*LAGOONS	(2)	EW007001	EW007465					
LAGOONS	(1)	EW007924						
*LAKES	(1)	EW007819						
LAKES	(1)	EW007801						
*LAND APPLICATION	(5)	EW007468	EW007527	EW007567	EW007825	EW007826		
LAND APPLICATION	(1)	EW007820						
*LANDFILLS	(3)	EW007072	EW008031	EW008032				

*LAND TREATMENT	(2)	EW007820 EW007825
*LAND USE	(6)	EW007548 EW007639 EW007642 EW007820 EW007898 EW008042
LAND USE	(1)	EW007652
*LASERS	(1)	EW007918
*LEACHATES	(1)	EW007072
*LEAD	(1)	EW007566
*LEADERS	(1)	EW006914
*LEADERSHIP	(2)	EW006833 EW006914
*LEADERSHIP TRAINING	(1)	EW006914
*LEAKS	(1)	EW007844
LEAKS	(1)	EW007003
*LEARNING ACTIVITIES	(3)	EW006835 EW006839 EW006842
*LEGAL ASPECTS	(2)	EW007817 EW007870
LEGAL ASPECTS	(1)	EW007899
*LEGISLATION	(2)	EW007667 EW007903
LEGISLATION	(3)	EW007642 EW007648 EW007662
*LEGISLATIVE HISTORY	(1)	EW007675
*LESSON PLANNING	(1)	EW007707
*LESSON PLANS	(1)	EW007695
*LESSONS	(1)	EW007708
*LIFT STATIONS	(1)	EW007689
LIGHT	(1)	EW007916
*LIGHTING	(1)	EW007916
LIME-SOFTENING	(1)	EW007674
*LIMNOLOGY	(1)	EW007893
LIMNOLOGY	(1)	EW007897
*LIQUEFACTION	(1)	EW007674
*LIQUID WASTES	(1)	EW007824
*LITERATURE REVIEWS	(5)	EW007416 EW007417 EW007650 EW007653 EW007842
*LOAD VARIATIONS	(1)	EW007554
*LYSIMETERS	(1)	EW007072
MACHINERY	(2)	EW008031 EW008032

*MAGNESIUM CARBONATE PROCESS	(1)	EW007787						
*MAINTENANCE	(27)	EW006996	EW006997	EW006998	EW007003	EW007251	EW007469	EW007556
	EW007558	EW007644	EW007649	EW007651	EW007657	EW007666	EW007670	EW007687
	EW007690	EW007789	EW007804	EW007807	EW007821	EW007861	EW007914	EW007922
	EW007967	EW008031	EW008032	EW008043				
MAINTENANCE	(4)	EW007557	EW007565	EW007566	EW007844			
*MAINTENANCE (PREVENTATIVE)	(5)	EW007469	EW007860	EW007861	EW008031	EW008032		
*MANAGEMENT	(59)	EW005596	EW005597	EW005599	EW005600	EW005601	EW006834	EW006835
	EW006836	EW006837	EW006840	EW006841	EW006914	EW007462	EW007463	EW007464
	EW007466	EW007467	EW007525	EW007527	EW007547	EW007548	EW007550	EW007551
	EW007638	EW007639	EW007649	EW007670	EW007671	EW007673	EW007804	EW007807
	EW007812	EW007816	EW007817	EW007818	EW007823	EW007825	EW007831	EW007835
	EW007836	EW007841	EW007858	EW007870	EW007871	EW007875	EW007876	EW007888
	EW007891	EW007894	EW007898	EW007899	EW007908	EW007910	EW007912	EW007913
	EW007916	EW007943	EW007964	EW008043				
MANAGEMENT	(8)	EW005598	EW007689	EW007786	EW007821	EW007862	EW007877	EW007878
	EW007921							
*MANAGEMENT DEVELOPMENT	(1)	EW007547						
*MANAGEMENT PLANS	(1)	EW007816						
MANAGEMENT SYSTEMS	(1)	EW007547						
*MANAGERS	(1)	EW006835						
*MANIPULATIVE MATERIALS	(1)	EW007713						
*MANPOWER NEEDS	(3)	EW007463	EW007563	EW007901				
*MANUALS	(3)	EW007784	EW007799	EW007819				
MANUALS	(1)	EW007968						
*MARINE ENVIRONMENT	(1)	EW007895						
*MARKET ANALYSIS	(1)	EW007649						
*MARKETING	(2)	EW007527	EW007556					
*MASSACHUSETTS	(1)	EW007858						
*MATERIAL COSTS	(1)	EW007913						
*MATHEMATICAL MODELS	(4)	EW007001	EW007002	EW007068	EW007863			
*MEASUREMENT	(4)	EW007070	EW007655	EW007839	EW007840			
MEASUREMENT	(2)	EW007889	EW007890					
*MEASUREMENT INSTRUMENTS	(1)	EW007790						
*MEASUREMENT TECHNIQUES	(4)	EW007737	EW007739	EW007839	EW007840			
*MELTON HILL RESERVOIR	(1)	EW008042						
*METALS	(1)	EW007653						

*METERS	(1)	EW007914						
*MICHIGAN	(2)	EW007003	EW007859					
*MICROBIOLOGY	(6)	EW007416	EW007417	EW007654	EW007839	EW007843	EW007915	
MICROBIOLOGY	(2)	EW006847	EW007555					
*MICROCOMPUTERS	(1)	EW007884						
*MICROSCREENING	(1)	EW007470						
*MINICOMPUTERS	(1)	EW007806						
*MIXERS	(1)	EW007553						
*MODELS	(7)	EW007416	EW007639	EW007823	EW007833	EW007859	EW007893	EW007899
MODELS	(3)	EW007702	EW007719	EW007897				
*MODIFICATIONS	(1)	EW007689						
*MOLECULES	(1)	EW007805						
*MONITORING	(17) EW007739 EW007965	EW006996 EW007790 EW007968	EW007069 EW007791	EW007070 EW007833	EW007071 EW007840	EW007072 EW007902	EW007073 EW007905	EW007569 EW007918
MONITORING	(4)	EW007548	EW007557	EW007644	EW007829			
MORALE	(1)	EW007467						
*MOTIVATION	(8) EW007711	EW006836	EW006914	EW007467	EW007692	EW007700	EW007703	EW007710
*MOTIVATION TECHNIQUES	(1)	EW007467						
MOTIVATION TECHNIQUES	(1)	EW006914						
*MULTIDISCIPLINARY APPROACH	(2)	EW005596	EW005599					
*MUNICIPAL BONDS	(1)	EW007464						
*MUNICIPALITIES	(8) EW007968	EW007004	EW007649	EW007651	EW007798	EW007825	EW007831	EW007873
MUNICIPALITIES	(5)	EW007556	EW007567	EW007656	EW007823	EW007861		
*NATURAL RESOURCES	(5)	EW007549	EW007639	EW007819	EW007891	EW008042		
*NEEDS ASSESSMENT	(5)	EW007556	EW007632	EW007901	EW007942	EW007943		
*NEMATOLOGY	(1)	EW005598						
*NEW MEXICO	(1)	EW007552						
*NEW YORK	(1)	EW007844						
NEW YORK	(1)	EW007831						
*NIPDWR	(2)	EW007675	EW007676					
*NOISE	(2)	EW007652	EW007971					

*NOISE CONTROL	(1)	EW007971
*NOMINAL GROUP TECHNIQUE	(1)	EW007943
*NONPOINT POLLUTION	(1)	EW007638
*NOTIFICATION	(1)	EW007878
NUTRIENT REMOVAL	(1)	EW007893
NUTRIENTS	(1)	EW007838
*OBJECTIVES	(1)	EW007693
*OCCUPATIONAL HEALTH	(1)	EW007971
*OCCUPATIONAL SAFETY	(1)	EW007466
OCEAN DUMPING	(1)	EW007895
*OCEANOGRAPHY	(3)	EW007784 EW007829 EW007895
*OCEANS	(2)	EW007824 EW007830
*ODORS	(2)	EW007526 EW007690
*OHIO	(1)	EW007565
*OHIO RIVER	(2)	EW007962 EW007963
*OIL	(4)	EW007570 EW007828 EW007829 EW007896
*OIL POLLUTION CONTROL	(3)	EW007827 EW007828 EW007829
*OIL RECOVERY	(1)	EW007783
OIL RECOVERY	(1)	EW007828
*OIL SPILL REMOVAL	(1)	EW007827
*OIL SPILLS	(6)	EW007783 EW007784 EW007785 EW007827 EW007828 EW007829
*OIL WATER SEPARATORS	(1)	EW007828
*ONSITE DISPOSAL	(1)	EW007677
*ONSITE WASTEWATER TREATMENT	(1)	EW007424
*OPERATIONS	(3)	EW007547 EW007804 EW007875
*OPERATIONS (PESTICIDES)	(1)	EW005596
*OPERATIONS (WASTEWATER)	(52)	EW007004 EW007424 EW007430 EW007465 EW007466 EW007468 EW007470 EW007523 EW007525 EW007552 EW007553 EW007554 EW007555 EW007556 EW007557 EW007560 EW007564 EW007565 EW007566 EW007567 EW007637 EW007649 EW007650 EW007654 EW007656 EW007657 EW007662 EW007664 EW007665 EW007666 EW007674 EW007689 EW007739 EW007786 EW007815 EW007821 EW007822 EW007823 EW007826 EW007830 EW007831 EW007862 EW007866 EW007869 EW007873 EW007897 EW007923 EW007924 EW007967 EW007968 EW008043 EW008047
*OPERATIONS (WATER)	(28)	EW006996 EW007462 EW007525 EW007556 EW007637 EW007649 EW007651 EW007657 EW007665 EW007666 EW007670 EW007671 EW007676 EW007787 EW007788 EW007789 EW007807 EW007815 EW007858 EW007869 EW007879 EW007880 EW007881 EW007887 EW007904 EW007968 EW007925 EW007972

OPERATIONS (WATER)	(1)	EW007963
*OPERATORS (WASTEWATER)	(1)	EW007563
*OPERATOR TRAINING	(2)	EW007963 EW007967
OPERATOR TRAINING	(1)	EW007563
*ORDINANCES	(1)	EW007899
*ORGANIC COMPOUNDS	(4)	EW007653 EW007659 EW007889 EW007890
ORGANIC COMPOUNDS	(1)	EW007656
*ORGANICS	(3)	EW007843 EW007889 EW007890
ORGANICS	(1)	EW007650
ORGANIZATIONS	(1)	EW007648
ORGANOCHLORINES	(1)	EW007810
ORGANOPHOSPHATES	(1)	EW007810
*OVERLAND FLOW	(1)	EW007825
*OZONE	(3)	EW007004 EW007656 EW007869
*PANEL DISCUSSION	(1)	EW007699
*PAPER MILLS	(1)	EW007786
PATHOGENS	(3)	EW005597 EW005598 EW007654
*PERFOMANCE BASED EDUCATION	(1)	EW006835
*PERFORMANCE	(2)	EW006836 EW007783
PERFORMANCE	(1)	EW007916
*PERFORMANCE BASED TEACHER EDUCATION	(40)	EW007692 EW007693 EW007694 EW007695 EW007696 EW007697 EW007698 EW007699 EW007700 EW007701 EW007702 EW007703 EW007704 EW007705 EW007706 EW007707 EW007708 EW007709 EW007710 EW007711 EW007712 EW007713 EW007714 EW007715 EW007716 EW007717 EW007718 EW007719 EW007720 EW007721 EW007722 EW007724 EW007725 EW007726 EW007727 EW007728 EW007729 EW007730 EW007731 EW007732
PERFORMANCE BASED TEACHER EDUCATION	(1)	EW007723
*PERFORMANCE EVALUATION	(40)	EW006996 EW006998 EW007430 EW007465 EW007468 EW007470 EW007526 EW007553 EW007557 EW007559 EW007560 EW007564 EW007565 EW007566 EW007567 EW007570 EW007674 EW007677 EW007687 EW007688 EW007785 EW007786 EW007787 EW007790 EW007791 EW007822 EW007823 EW007860 EW007861 EW007862 EW007879 EW007880 EW007881 EW007882 EW007883 EW007900 EW007913 EW007914 EW007923 EW007925
PERFORMANCE EVALUATION	(4)	EW007784 EW007788 EW007807 EW007877
*PERFORMANCE STANDARDS	(1)	EW007913
PERIODICALS	(1)	EW007648
*PERSONNEL	(2)	EW006834 EW006839

*PERSONNEL DEVELOPMENT	(1)	EW007966						
*PEST CONTROL	(4)	EW005596	EW005597	EW005601	EW006847			
PEST CONTROL	(1)	EW005600						
*PESTICIDES	(5)	EW005597	EW005598	EW007809	EW007810	EW007811		
PESTICIDES	(1)	EW007659						
*PEST MANAGEMENT	(2)	EW005596	EW005600					
*PETROCHEMICALS	(1)	EW007896						
*PETROLEUM	(1)	EW007570						
PETROLEUM	(1)	EW007896						
*PETROLEUM INDUSTRY	(1)	EW007896						
PETROLEUM INDUSTRY	(1)	EW007828						
PHENOXY ALKYL ACIDS	(1)	EW007810						
*PHOSPHATES	(1)	EW007862						
PHOSPHATES	(1)	EW007883						
*PHOSPHOROUS	(2)	EW007661	EW007826					
*PHOSPHOROUS REMOVAL	(1)	EW007826						
PHOSPHORUS	(1)	EW007883						
PHYSICAL PROCESS	(1)	EW007893						
*PILOT PLANTS	(1)	EW007787						
*PIPES	(6)	EW006997	EW006998	EW007687	EW007789	EW007860	EW007861	
PIPES	(1)	EW007558						
*PIPES (WATER)	(3)	EW006998	EW007524	EW007863				
*PLANNING	(62)	EW006833	EW006835	EW006837	EW006840	EW006841	EW007464	EW007466
	EW007551	EW007632	EW007638	EW007639	EW007667	EW007670	EW007673	EW007692
	EW007694	EW007695	EW007696	EW007697	EW007698	EW007699	EW007700	EW007702
	EW007703	EW007706	EW007707	EW007708	EW007709	EW007710	EW007711	EW007712
	EW007713	EW007714	EW007715	EW007716	EW007717	EW007718	EW007719	EW007720
	EW007721	EW007722	EW007723	EW007724	EW007725	EW007726	EW007804	EW007812
	EW007816	EW007817	EW007818	EW007831	EW007835	EW007836	EW007841	EW007863
	EW007871	EW007877	EW007891	EW007894	EW007898	EW007966	EW008042	
PLANNING	(6)	EW007552	EW007704	EW007705	EW007784	EW007819	EW007964	
*PLANT DISEASES	(1)	EW005597						
*PLANT PARASITES	(1)	EW005598						
*PLANT PATHOLOGY	(1)	EW005597						
*PLANT PERFORMANCE	(1)	EW007804						

*PNEUMATICS	(1)	EW007251
*POLICY	(1)	EW007550
*POLICY FORMATION	(2)	EW007667 EW007819
*POLLUTANTS	(2)	EW007569 EW007893
POLLUTANTS	(3)	EW007905 EW007907 EW007969
*POLLUTION	(6)	EW007642 EW007652 EW007659 EW007813 EW007839 EW007896
POLLUTION	(3)	EW007835 EW007836 EW007840
*POLLUTION CONTROL	(10)	EW007548 EW007559 EW007652 EW007835 EW007836 EW007868 EW007892 EW007899 EW007902 EW007905
POLLUTION CONTROL	(2)	EW007563 EW007859
*POLYMERS	(1)	EW007862
PONDS	(1)	EW007801
*POST SECONDARY EDUCATION	(76)	EW006839 EW006842 EW006914 EW007251 EW007632 EW007637 EW007655 EW007657 EW007664 EW007665 EW007666 EW007692 EW007693 EW007694 EW007695 EW007696 EW007697 EW007698 EW007699 EW007700 EW007701 EW007702 EW007703 EW007704 EW007705 EW007706 EW007707 EW007708 EW007709 EW007710 EW007711 EW007712 EW007713 EW007714 EW007715 EW007716 EW007717 EW007718 EW007719 EW007720 EW007721 EW007722 EW007724 EW007725 EW007726 EW007727 EW007728 EW007729 EW007730 EW007731 EW007732 EW007737 EW007801 EW007806 EW007808 EW007809 EW007810 EW007811 EW007815 EW007871 EW007872 EW007884 EW007963 EW007965 EW007968 EW007969 EW007970 EW007971 EW007972 EW008043 EW006833 EW006834 EW007964 EW007966 EW008031 EW008032
POST SECONDARY EDUCATION	(2)	EW006835 EW007723
*POTABLE WATER	(2)	EW007843 EW007887
POTABLE WATER	(2)	EW007632 EW007842
*PREQUALIFICATIONS	(1)	EW007876
*PRETREATMENT	(1)	EW007873
PRETREATMENT	(1)	EW007968
*PREVENTIVE MAINTENANCE	(1)	EW007914
*PRIMARY TREATMENT	(1)	EW007567
*PROBLEM SOLVING	(2)	EW007705 EW007789
*PROCESS CONTROL	(2)	EW007662 EW007815
PROCESS CONTROL	(1)	EW007417
*PROCESS DESIGN	(1)	EW007822
PROCESS DESIGN	(1)	EW007564
*PROCESSES	(1)	EW007823
*PROCUREMENT	(1)	EW007964

*PRODUCTIVITY	(2)	EW006836	EW007916					
PRODUCTIVITY	(1)	EW007917						
*PROFESSIONAL DEVELOPMENT	(2)	EW007714	EW007723					
PROFESSIONAL DEVELOPMENT	(39)	EW007692	EW007693	EW007694	EW007695	EW007696	EW007697	EW007698
	EW007699	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706
	EW007707	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007715
	EW007716	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722	EW007724
	EW007725	EW007726	EW007727	EW007728	EW007729	EW007730	EW007731	EW007732
*PROGRAM DESCRIPTIONS	(3)	EW007637	EW007819	EW007892				
PROGRAM DESCRIPTIONS	(2)	EW007878	EW007967					
*PROGRAM DEVELOPMENT	(3)	EW007466	EW007632	EW007891				
PROGRAM DEVELOPMENT	(1)	EW007831						
*PROGRAM EVALUATION	(3)	EW007833	EW007942	EW007967				
*PROGRAM IMPLEMENTATION	(1)	EW007900						
PROGRAM IMPLEMENTATION	(1)	EW007891						
*PROGRAMMABLE CALCULATORS	(1)	EW007805						
*PROGRAMMED INSTRUCTION	(1)	EW007725						
*PROGRAMMING	(1)	EW007805						
*PROGRAMS	(1)	EW006834						
*PROGRAM VALIDATION	(1)	EW008043						
*PROJECT COSTS	(1)	EW007798						
*PROJECT DESCRIPTIONS	(1)	EW007918						
*PROJECTION EQUIPMENT	(2)	EW007720	EW007722					
*PROJECT MANAGEMENT	(1)	EW007964						
*PROJECT PLANNING	(1)	EW007673						
PROJECT PLANNING	(1)	EW008042						
*PSYCHOMOTOR SKILLS	(1)	EW007713						
*PUBLICATIONS	(1)	EW007648						
PUBLICATIONS	(2)	EW007817	EW007818					
*PUBLIC HEALTH	(9)	EW006847	EW007654	EW007672	EW007675	EW007814	EW007878	EW007967
	EW007970	EW008030						
PUBLIC HEALTH	(4)	EW007527	EW007676	EW007788	EW007877			
PUBLIC NOTIFICATION	(1)	EW007878						
*PUBLIC OPINION	(2)	EW007878	EW007894					

PUBLIC OPINION	(1)	EW007816
*PUBLIC PARTICIPATION	(3)	EW007549 EW007667 EW007894
*PUBLIC POLICY	(3)	EW007903 EW007904 EW007907
PUBLIC RELATIONS	(1)	EW007878
*PULP WASTES	(1)	EW007786
*PUMPS	(4)	EW007558 EW007657 EW007666 EW007689
*PUMP STATIONS	(2)	EW007689 EW007798
*PURIFICATION	(1)	EW007558
*QUALIFICATIONS	(1)	EW007876
QUALITY OF LIFE	(1)	EW007642
*QUESTIONING	(1)	EW007709
*QUESTIONING TECHNIQUES	(1)	EW007709
*RADIOACTIVE WASTES	(1)	EW007824
*RAPID GRANULAR MEDIA	(1)	EW007881
*RATES	(1)	EW007921
*RATE SCHEDULES	(1)	EW007909
*RATE STRUCTURES	(3)	EW007911 EW007912 EW007921
RECLAMATION	(1)	EW007552
*RECOMMENDATIONS	(4)	EW007559 EW007673 EW007876 EW007903
RECOMMENDATIONS	(1)	EW007558
*RECORDERS	(1)	EW007790
*RECORD-KEEPING	(1)	EW007525
*RECORDS	(1)	EW007525
*RECYCLING	(3)	EW007550 EW007552 EW007814
RECYCLING	(1)	EW007892
*REFERENCE MATERIALS	(6)	EW007648 EW007659 EW007815 EW007817 EW007818 EW007841
*REGIONAL PLANNING	(3)	EW007894 EW007898 EW008042
REGIONAL PLANNING	(1)	EW007638
*REGRESSION ANALYSIS	(1)	EW007805
*REGULATIONS	(9)	EW007675 EW007676 EW007817 EW007878 EW007899 EW007900 EW007903 EW007907 EW007968
REGULATIONS	(4)	EW006847 EW007463 EW007677 EW007902
*REHABILITATION	(3)	EW006998 EW007861 EW007922

*REINFORCEMENT TECHNIQUES	(1)	EW007710
*REMOTE SENSING	(2)	EW007840 EW007918
REMOTE SENSING	(1)	EW007829
*REPAIR	(1)	EW007922
*REPORTS	(1)	EW007739
*RESEARCH	(20)	EW005596 EW005598 EW005600 EW007417 EW007653 EW007654 EW007661 EW007813 EW007828 EW007829 EW007830 EW007836 EW007838 EW007842 EW007893 EW007894 EW007895 EW007896 EW007897 EW007898
*RESEARCH REPORTS	(42)	EW007004 EW007072 EW007416 EW007560 EW007639 EW007642 EW007648 EW007690 EW007790 EW007813 EW007816 EW007817 EW007818 EW007822 EW007823 EW007824 EW007825 EW007839 EW007842 EW007843 EW007865 EW007866 EW007867 EW007868 EW007869 EW007870 EW007879 EW007880 EW007889 EW007893 EW007894 EW007895 EW007896 EW007897 EW007898 EW007901 EW007902 EW007904 EW007914 EW007942 EW008030 EW008047
RESEARCH REPORTS	(3)	EW007812 EW007859 EW007883
*RESEARCH REVIEWS	(1)	EW007650
*RESERVOIRS	(4)	EW006999 EW007812 EW007883 EW008042
*RESIDENTIAL USE	(1)	EW007909
*RESOURCE DEVELOPMENT	(1)	EW007841
RESOURCE DEVELOPMENT (WATER)	(1)	EW007894
*RESOURCE MATERIALS	(3)	EW007648 EW007890 EW007891
RESOURCE RECOVERY	(1)	EW007892
*RESTORATION	(1)	EW006997
*REVERSE OSMOSIS	(1)	EW007558
*RISK BENEFIT ANALYSIS	(1)	EW007871
*RISKS	(1)	EW007871
*RIVERS	(3)	EW007812 EW007902 EW007905
ROLE PLAYING	(1)	EW007702
*RUNOFF	(1)	EW007899
RUNOFF WATERS	(1)	EW007893
*RURAL AREAS	(3)	EW007670 EW007788 EW007888
*SAFE DRINKING WATER ACT	(1)	EW007900
SAFE DRINKING WATER ACT	(1)	EW008030
*SAFETY	(2)	EW007466 EW007907

SAFETY	(1)	EW007970						
SALARIES	(1)	EW007563						
*SAMPLING	(8)	EW006996	EW007569	EW007791	EW007829	EW007840	EW007915	EW007965
	EW008036							
*SAND FILTERS	(2)	EW007821	EW007881					
*SANITATION	(6)	EW006847	EW007670	EW007671	EW007672	EW007673	EW007814	
SCIENCE EDUCATION	(1)	EW007801						
*SCIENTIFIC RESEARCH	(1)	EW007907						
SCREENING	(1)	EW007559						
*SECONDARY EDUCATION	(6)	EW007728	EW007729	EW007730	EW007731	EW007732	EW007737	
SECONDARY EDUCATION	(36)	EW007692	EW007693	EW007694	EW007695	EW007696	EW007697	EW007698
	EW007699	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706
	EW007707	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007714
	EW007715	EW007716	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722
	EW007723	EW007724	EW007725	EW007726	EW007727			
*SECONDARY TREATMENT	(2)	EW007465	EW007567					
SEDIMENTATION	(1)	EW007788						
*SEISMIC METHODS	(1)	EW007070						
*SELF-DIRECTED INSTRUCTION	(1)	EW006839						
*SELF-DIRECTED LEARNING	(1)	EW006835						
*SELF-PACED INSTRUCTION	(1)	EW006842						
*SEMINARS	(2)	EW006834	EW007661					
SEMINARS	(1)	EW007964						
*SEPTIC TANKS	(2)	EW007677	EW007821					
*SEWAGE	(6)	EW007661	EW007814	EW007826	EW007837	EW007838	EW007897	
SEWAGE	(2)	EW006847	EW007830					
*SEWAGE DISPOSAL	(1)	EW007677						
*SEWAGE EFFLUENTS	(1)	EW007895						
*SEWAGE REUSE	(1)	EW007814						
*SEWAGE SLUDGE	(1)	EW007661						
*SEWAGE SYSTEMS	(1)	EW007921						
*SEWAGE TREATMENT	(3)	EW007821	EW007830	EW007869				
SEWAGE TREATMENT	(1)	EW007822						
*SEWERS	(13)	EW007464	EW007526	EW007662	EW007687	EW007689	EW007690	EW007798
	EW007831	EW007859	EW007860	EW007861	EW007921	EW007968		

SEWERS	(1)	EW007866						
*SEWER SYSTEMS	(1)	EW007798						
*SHIPS	(2)	EW007570	EW007830					
*SHORELINE PROTECTION	(1)	EW007784						
*SIMULATION	(2)	EW007639	EW007702					
*SITE SELECTION	(1)	EW007820						
*SKILL DEVELOPMENT	(4)	EW007693	EW007695	EW007701	EW007713			
SKILL DEVELOPMENT	(3)	EW006914	EW007251	EW007966				
*SKILLS DEVELOPMENT	(1)	EW007737						
*SKILLS (OCCUPATIONAL)	(1)	EW007738						
*SLIDES	(1)	EW007721						
*SLUDGE	(8)	EW007430	EW007468	EW007527	EW007555	EW007560	EW007674	EW007823
	EW007895							
SLUDGE	(3)	EW007787	EW007821	EW007822				
*SLUDGE DISPOSAL	(5)	EW007468	EW007527	EW007674	EW007787	EW007837		
SLUDGE DISPOSAL	(3)	EW007430	EW007838	EW007866				
SLUDGE TREATMENT	(1)	EW007430						
*SMALL COMMUNITIES	(1)	EW007888						
*SMALL SYSTEMS	(1)	EW007888						
*SOCIAL ACTION	(1)	EW007667						
*SOCIAL EFFECTS	(1)	EW007894						
*SOCIETAL NEEDS	(1)	EW006840						
*SOCIOLOGICAL FACTORS	(1)	EW005596						
SOCIOLOGY	(1)	EW007894						
*SOILS	(1)	EW007672						
SOILS	(2)	EW007677	EW007820					
*SOLIDS	(1)	EW007468						
SOLIDS	(1)	EW007470						
*SOLID WASTES	(1)	EW007867						
SOLID WASTES	(2)	EW007824	EW007868					
*SOUND DETECTION	(1)	EW007844						
SPECTROMETRY	(1)	EW007808						
SPECTROPHOTOMETRY	(1)	EW007808						

213

*SPILLS	(2)	EW007877 EW007905
STABILIZATION PONDS	(1)	EW007924
*STAFF DEVELOPMENT	(2)	EW007547 EW007966
STAFFING	(1)	EW007563
*STANDARD PLATE COUNT	(1)	EW007915
*STANDARDS	(12)	EW007568 EW007569 EW007651 EW007672 EW007675 EW007871 EW007876 EW007878 EW007902 EW007904 EW007907 EW007913
STANDARDS	(5)	EW007667 EW007676 EW007841 EW007887 EW007972
*STATE-OF-THE-ART REVIEWS	(12)	EW007808 EW007864 EW007656 EW007809 EW007810 EW007811 EW007833 EW007842 EW007865 EW007882 EW007884 EW007901
*STATE PROGRAMS	(6)	EW007632 EW007637 EW007638 EW007816 EW007819 EW007900
*STATE ROLE	(1)	EW007870
*STATISTICAL APPLICATIONS	(1)	EW007863
*STATISTICS	(2)	EW007805 EW007853
*STORM SEWERS	(1)	EW007859
*STORMWATER	(2)	EW007831 EW007899
*STRATEGIES	(1)	EW007550
STREAM CHANNELS	(1)	EW007638
*STREAMS	(3)	EW007737 EW007893 EW007965
STREAMS	(1)	EW007801
*STUDENT EVALUATION	(1)	EW007727
*STUDENT INTERESTS	(1)	EW007692
*STUDENT NEEDS	(1)	EW007692
STUDENT NEEDS	(1)	EW007715
*STUDENT PARTICIPATION	(1)	EW007700
*STUDENT PROJECTS	(1)	EW007706
*STUDY GUIDES	(2)	EW008031 EW008032
*STUDY SKILLS	(1)	EW007703
*SULFIDES	(2)	EW007526 EW007698
*SUPERVISION	(5)	EW006914 EW007467 EW007547 EW007704 EW007964
SUPERVISION	(1)	EW007466
*SURFACE RUNOFF	(1)	EW007831
*SURFACE WATER	(1)	EW007812

*SURVEYS	(8)	EW007430	EW007563	EW007649	EW007676	EW007677	EW007878	EW007894
	EW007901							
SUSPENDED SOLIDS	(1)	EW007788						
*SYMPOSIA	(2)	EW007654	EW007807					
SYMPOSIA	(2)	EW007699	EW007812					
*SYRINGE SAMPLERS	(1)	EW007791						
*SYSTEMS ANALYSIS	(2)	EW007639	EW007833					
*SYSTEMS APPROACH	(1)	EW007833						
*TANKS	(1)	EW007922						
*TAXES	(1)	EW007908						
*TEACHER DEVELOPED MATERIALS	(1)	EW007697						
*TEACHER EDUCATION	(39)	EW007692	EW007693	EW007694	EW007695	EW007696	EW007697	EW007698
	EW007699	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706
	EW007707	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007714
	EW007715	EW007716	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722
	EW007724	EW007725	EW007726	EW007728	EW007729	EW007730	EW007731	EW007732
TEACHER EDUCATION	(2)	EW007723	EW007727					
*TEACHER IMPROVEMENT	(2)	EW007723	EW007727					
TEACHER IMPROVEMENT	(39)	EW007692	EW007693	EW007694	EW007695	EW007696	EW007697	EW007698
	EW007699	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706
	EW007707	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007714
	EW007715	EW007716	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722
	EW007724	EW007725	EW007726	EW007728	EW007729	EW007730	EW007731	EW007732
TEACHER PERFORMANCE	(41)	EW007692	EW007693	EW007694	EW007695	EW007696	EW007697	EW007698
	EW007699	EW007700	EW007701	EW007702	EW007703	EW007704	EW007705	EW007706
	EW007707	EW007708	EW007709	EW007710	EW007711	EW007712	EW007713	EW007714
	EW007715	EW007716	EW007717	EW007718	EW007719	EW007720	EW007721	EW007722
	EW007723	EW007724	EW007725	EW007726	EW007727	EW007728	EW007729	EW007730
	EW007731	EW007732						
TEACHING MACHINES	(1)	EW007725						
*TEACHING METHODS	(5)	EW006838	EW007706	EW007716	EW007717	EW007725		
TEACHING METHODS	(7)	EW007704	EW007705	EW007709	EW007710	EW007715	EW007719	EW007720
*TEAM TEACHING	(1)	EW007716						
*TECHNIQUES	(1)	EW007819						
*TECHNOLOGICAL ADVANCEMENT	(2)	EW007430	EW007656					
*TECHNOLOGICAL ADVANCEMENTS	(7)	EW007525	EW007783	EW007791	EW007799	EW007917	EW007918	EW008047
*TECHNOLOGY	(16)	EW006833	EW007416	EW007417	EW007430	EW007644	EW007799	EW007819
	EW007820	EW007827	EW007828	EW007844	EW007861	EW007884	EW007892	EW007903
	EW007924							
TECHNOLOGY	(5)	EW006840	EW007424	EW007656	EW007866	EW007917		

*TELEVISION	(1)	EW007724
*TENNESSEE	(2)	EW007564 EW008042
*TESTING	(1)	EW008036
*TEXAS	(2)	EW007547 EW007967
*TEXTILE INDUSTRY	(2)	EW007867 EW007868
TIME DELAYS	(1)	EW007673
*TITRATION	(2)	EW007688 EW007805
TITRATION	(1)	EW007808
*TOXICITY	(4)	EW007568 EW007569 EW007650 EW008030
*TOXICOLOGY	(2)	EW007648 EW007653
*TOXIC SUBSTANCES	(5)	EW007568 EW007569 EW007653 EW007659 EW007878
TOXIC SUBSTANCES	(1)	EW007662
*TRACKING BUOYS	(1)	EW007785
*TRAINER EDUCATION	(1)	EW006841
*TRAINERS	(3)	EW006833 EW006841 EW007942
*TRAINING	(61)	EW006833 EW006834 EW006835 EW006837 EW006838 EW006839 EW006840 EW006841 EW006914 EW007632 EW007637 EW007657 EW007664 EW007665 EW007666 EW007692 EW007693 EW007695 EW007696 EW007697 EW007698 EW007699 EW007700 EW007701 EW007702 EW007703 EW007704 EW007705 EW007706 EW007707 EW007708 EW007709 EW007710 EW007711 EW007712 EW007713 EW007714 EW007715 EW007716 EW007717 EW007718 EW007719 EW007720 EW007721 EW007722 EW007723 EW007724 EW007725 EW007726 EW007727 EW007728 EW007729 EW007730 EW007731 EW007732 EW007901 EW007943 EW007964 EW007966 EW007968 EW007972
TRAINING	(2)	EW007694 EW007888
*TRAINING MANUALS	(4)	EW007965 EW007969 EW007970 EW007971
*TRAINING NEEDS	(2)	EW007463 EW007942
*TRAINING PROGRAMS	(7)	EW006842 EW007665 EW007901 EW007942 EW007943 EW007967 EW007971
TRAINING PROGRAMS	(1)	EW006836
*TRAINING TECHNIQUES	(1)	EW006842
*TRANSPARENCIES	(1)	EW007720
*TREND ANALYSIS	(2)	EW006833 EW006840
TRIAZINE	(1)	EW007811
*TRICHLOROETHYLENE	(1)	EW007925
*TRICKLING FILTERS	(1)	EW007664
*TRIHALOMETHANES	(1)	EW007842
*TROUBLESHOOTING	(2)	EW007251 EW007555

*TURBIDITY	(1)	EW007788
TURBINE GATES	(1)	EW007789
*TUTORING	(1)	EW007701
*TVA	(1)	EW008042
*UNIT OF INSTRUCTION	(1)	EW007694
UNIT OPERATIONS	(1)	EW007430
URBAN AREAS	(1)	EW007899
*URBAN ENVIRONMENT	(1)	EW007642
URBAN ENVIRONMENT	(3)	EW007835 EW007836 EW007898
*URBANIZATION	(1)	EW007898
USDA	(1)	EW005596
USEPA	(1)	EW005596
*UTILITIES	(8)	EW007551 EW007556 EW007649 EW007651 EW007877 EW007878 EW007891 EW007908
UTILITIES	(6)	EW007547 EW007557 EW007665 EW007666 EW007739 EW007858
*UTILITIES (WATER)	(4)	EW007910 EW007911 EW007912 EW007913
*VADOSE ZONE	(1)	EW007869
*VALUES	(4)	EW006833 EW006836 EW006837 EW006840
*VALVES	(3)	EW007660 EW007651 EW007789
*VEGETATION	(1)	EW007825
*VERBAL COMMUNICATION	(1)	EW007712
*VIDEODISCS	(1)	EW006842
*VIDEO EQUIPMENT	(1)	EW007724
VIDEOTAPE RECORDINGS	(1)	EW007724
*VIDEOTAPES	(1)	EW007657
*VIRGINIA	(1)	EW007677
*VISUAL AIDS	(4)	EW007718 EW007719 EW007720 EW007726
*VOCATIONAL EDUCATION	(43)	EW006839 EW006841 EW007692 EW007693 EW007694 EW007695 EW007696 EW007697 EW007698 EW007699 EW007700 EW007701 EW007702 EW007703 EW007704 EW007705 EW007706 EW007707 EW007708 EW007709 EW007710 EW007711 EW007712 EW007713 EW007714 EW007715 EW007716 EW007717 EW007718 EW007719 EW007720 EW007721 EW007722 EW007723 EW007724 EW007725 EW007726 EW007727 EW007728 EW007729 EW007730 EW007731 EW007732
*VOLUNTEERS	(1)	EW006914
VOLUNTEER TRAINING	(1)	EW006914

226

227

*WASTE DISPOSAL	(27)	EW006847	EW007071	EW007072	EW007430	EW007468	EW007527	EW007644
	EW007652	EW007661	EW007662	EW007670	EW007671	EW007673	EW007674	EW007677
	EW007814	EW007824	EW007825	EW007826	EW007828	EW007830	EW007837	EW007838
	EW007903	EW007904	EW008031	EW008032				
WASTE DISPOSAL	(2)	EW007563	EW007829					
*WASTE MANAGEMENT	(2)	EW007867	EW007868					
*WASTES	(3)	EW007661	EW007826	EW007897				
WASTES	(6)	EW006847	EW007652	EW007662	EW007825	EW007829	EW007830	
*WASTES (ORGANIC)	(2)	EW007837	EW007838					
*WASTE TREATMENT	(1)	EW007897						
*WASTEWATER	(2)	EW007644	EW007904					
*WASTEWATER COLLECTION	(13)	EW007526	EW007563	EW007687	EW007689	EW007690	EW007798	EW007831
	EW007859	EW007860	EW007861	EW007899	EW007921	EW007968		
*WASTEWATER DISPOSAL	(1)	EW007424						
*WASTEWATER RECLAMATION	(1)	EW007552						
*WASTEWATER TREATMENT	(77)	EW007004	EW007416	EW007417	EW007424	EW007430	EW007464	EW007465
	EW007466	EW007468	EW007469	EW007470	EW007523	EW007525	EW007526	EW007527
	EW007547	EW007552	EW007553	EW007554	EW007555	EW007556	EW007557	EW007560
	EW007563	EW007564	EW007565	EW007566	EW007567	EW007570	EW007637	EW007644
	EW007649	EW007650	EW007654	EW007656	EW007657	EW007661	EW007662	EW007664
	EW007665	EW007666	EW007667	EW007674	EW007677	EW007689	EW007690	EW007739
	EW007786	EW007799	EW007814	EW007815	EW007820	EW007821	EW007822	EW007823
	EW007825	EW007826	EW007830	EW007833	EW007837	EW007838	EW007860	EW007862
	EW007866	EW007867	EW007868	EW007869	EW007873	EW007892	EW007897	EW007903
	EW007923	EW007924	EW007967	EW007968	EW008043	EW008047		
WASTEWATER TREATMENT	(1)	EW007861						
*WATER ANALYSIS	(2)	EW007869	EW007890					
WATER COLLECTION	(1)	EW007788						
*WATER CONSERVATION	(8)	EW007002	EW007523	EW007549	EW007550	EW007552	EW007891	EW007909
	EW007912							
WATER CONSERVATION	(1)	EW007921						
*WATER DISTRIBUTION	(9)	EW006997	EW006998	EW007000	EW007003	EW007524	EW007789	EW007807
	EW007863	EW008030						
WATER DISTRIBUTION	(1)	EW007963						
*WATER HAMMER	(1)	EW007789						
*WATER IMPOUNDMENT	(1)	EW007812						
*WATER LEAKS	(1)	EW007003						
*WATER LOSS	(2)	EW007003	EW007844					
*WATER MAINS	(1)	EW007863						
*WATER MANAGEMENT	(2)	EW007463	EW007870					

*WATER METERS	(2)	EW007002	EW007914						
*WATER POLLUTION	(4)	EW007814	EW007839	EW007859	EW007896				
WATER POLLUTION	(1)	EW007897							
*WATER POLLUTION CONTROL	(27)	EW007072	EW007416	EW007417	EW007424	EW007430	EW007638	EW007644	
	EW007652	EW007655	EW007656	EW007662	EW007667	EW007783	EW007784	EW007785	
	EW007813	EW007825	EW007827	EW007829	EW007831	EW007833	EW007835	EW007836	
	EW007842	EW007867	EW007868	EW007873					
WATER POLLUTION CONTROL	(8)	EW006847	EW007637	EW007642	EW007650	EW007739	EW007826	EW007838	
	EW007890								
*WATER PROJECTS	(2)	EW007670	EW007671						
*WATER PURIFICATION	(1)	EW007869							
*WATER QUALITY	(70)	EW007004	EW007071	EW007072	EW007073	EW007463	EW007548	EW007567	
	EW007568	EW007570	EW007638	EW007655	EW007667	EW007672	EW007675	EW007676	
	EW007737	EW007788	EW007791	EW007799	EW007808	EW007809	EW007810	EW007811	
	EW007816	EW007817	EW007818	EW007819	EW007824	EW007827	EW007829	EW007831	
	EW007833	EW007839	EW007840	EW007842	EW007859	EW007868	EW007870	EW007872	
	EW007877	EW007878	EW007879	EW007880	EW007881	EW007882	EW007883	EW007887	
	EW007890	EW007892	EW007893	EW007894	EW007895	EW007896	EW007897	EW007899	
	EW007900	EW007902	EW007903	EW007904	EW007905	EW007907	EW007915	EW007918	
	EW007925	EW007965	EW007969	EW007970	EW007972	EW008030	EW008036		
WATER QUALITY	(17)	EW007430	EW007555	EW007557	EW007650	EW007654	EW007662	EW007688	
	EW007813	EW007815	EW007826	EW007835	EW007836	EW007837	EW007843	EW007888	
	EW007889	EW007898							
*WATER RATES	(6)	EW007908	EW007909	EW007910	EW007911	EW007912	EW007921		
WATER RATES	(1)	EW007549							
*WATER RESOURCES	(38)	EW007003	EW007068	EW007069	EW007070	EW007071	EW007073	EW007462	
	EW007463	EW007464	EW007523	EW007524	EW007548	EW007549	EW007550	EW007638	
	EW007670	EW007672	EW007673	EW007737	EW007790	EW007812	EW007816	EW007817	
	EW007818	EW007837	EW007841	EW007844	EW007870	EW007871	EW007872	EW007888	
	EW007889	EW007891	EW007894	EW007898	EW007921	EW007963	EW008042		
WATER RESOURCES	(12)	EW007002	EW007652	EW007671	EW007791	EW007807	EW007835	EW007836	
	EW007877	EW007878	EW007969	EW007970	EW007972				
*WATER REUSE	(3)	EW007550	EW007552	EW007837					
WATER RIGHTS	(1)	EW007870							
*WATERSHEDS	(4)	EW007462	EW007548	EW007639	EW007819				
WATER SOFTENING	(1)	EW007815							
*WATER STORAGE	(5)	EW006999	EW007001	EW007069	EW007812	EW007922			
WATER STORAGE	(1)	EW007807							
*WATER SUPPLY	(48)	EW006847	EW006997	EW006998	EW006999	EW007000	EW007003	EW007462	
	EW007524	EW007548	EW007549	EW007551	EW007632	EW007651	EW007670	EW007671	
	EW007673	EW007675	EW007676	EW007788	EW007790	EW007807	EW007812	EW007841	
	EW007844	EW007858	EW007863	EW007877	EW007878	EW007879	EW007880	EW007882	
	EW007888	EW007889	EW007890	EW007891	EW007894	EW007898	EW007900	EW007908	

	EW007909 EW007972	EW007910	EW007911	EW007912	EW007922	EW007963	EW007969	EW007970
WATER SUPPLY	(4)	EW007637	EW007666	EW007843	EW007887			
*WATER TANKS	(2)	EW006999	EW007922					
*WATER TREATMENT	(37) EW007556 EW007799 EW007881 EW007904	EW006996 EW007637 EW007815 EW007882 EW007925	EW006997 EW007649 EW007842 EW007883 EW007969	EW007000 EW007657 EW007843 EW007887 EW007970	EW007462 EW007665 EW007858 EW007888 EW007972	EW007464 EW007666 EW007869 EW007889 EW008030	EW007525 EW007787 EW007879 EW007890	EW007547 EW007788 EW007880 EW007900
WATER TREATMENT	(1)	EW007833						
*WATER USE	(8) EW007921	EW007002	EW007523	EW007549	EW007909	EW007910	EW007911	EW007912
WATER USE	(1)	EW007550						
*WEED CONTROL	(1)	EW005599						
*WEEDS	(1)	EW005599						
*WELLS	(4)	EW007644	EW007790	EW007791	EW007903			
WELLS	(2)	EW007071	EW007072					
*WEST GERMANY	(1)	EW007883						
*WIRE CLOTH	(1)	EW007559						
*WISCONSIN	(1)	EW007786						
*WORKBOOKS	(1)	EW007801						
*WORK ENVIRONMENT	(3)	EW006836	EW007916	EW007971				
*WORKSHOPS	(2)	EW007833	EW007964					
*WORLD PROBLEMS	(3)	EW007813	EW007814	EW007896				
WORLD PROBLEMS	(2)	EW007654	EW007838					
*ZOOLOGY	(1)	EW007839						